3-24-96

— FARM · MACHINERY —

GENUINE

Sandwich Corn Shellers!

Distance all Competitors in

Working Qualities, Capacity, Durability.

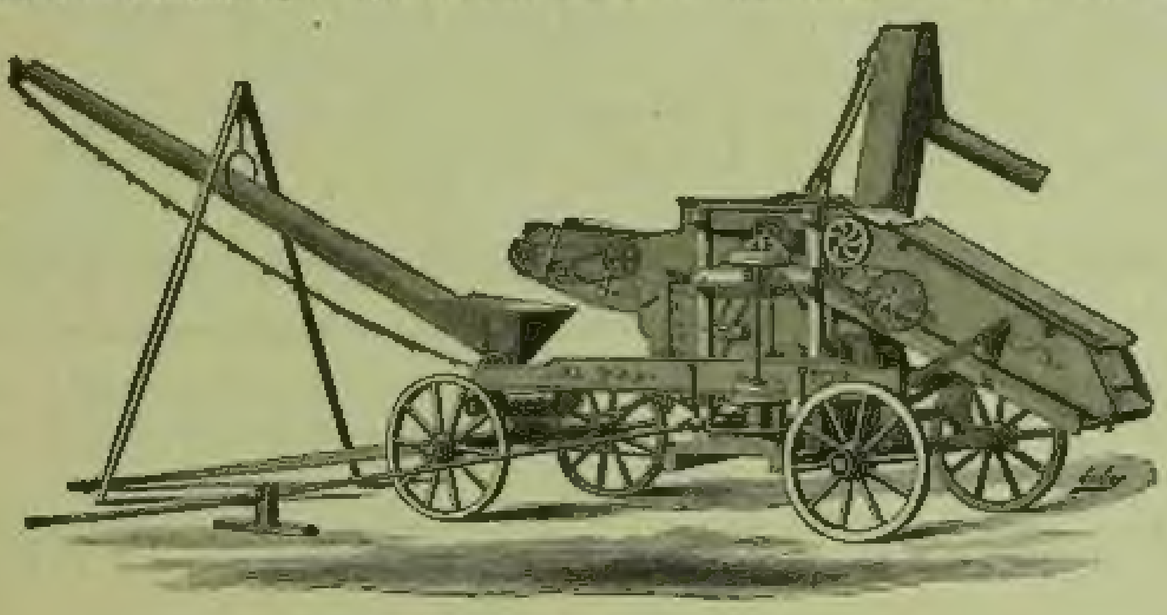
All Sizes

From the One Hole Hand Sheller to the Powerful Eight Hole.

All Styles

For Steam, Horse or Hand Power.

CAPACITIES—10 to 500 Bushels per hour

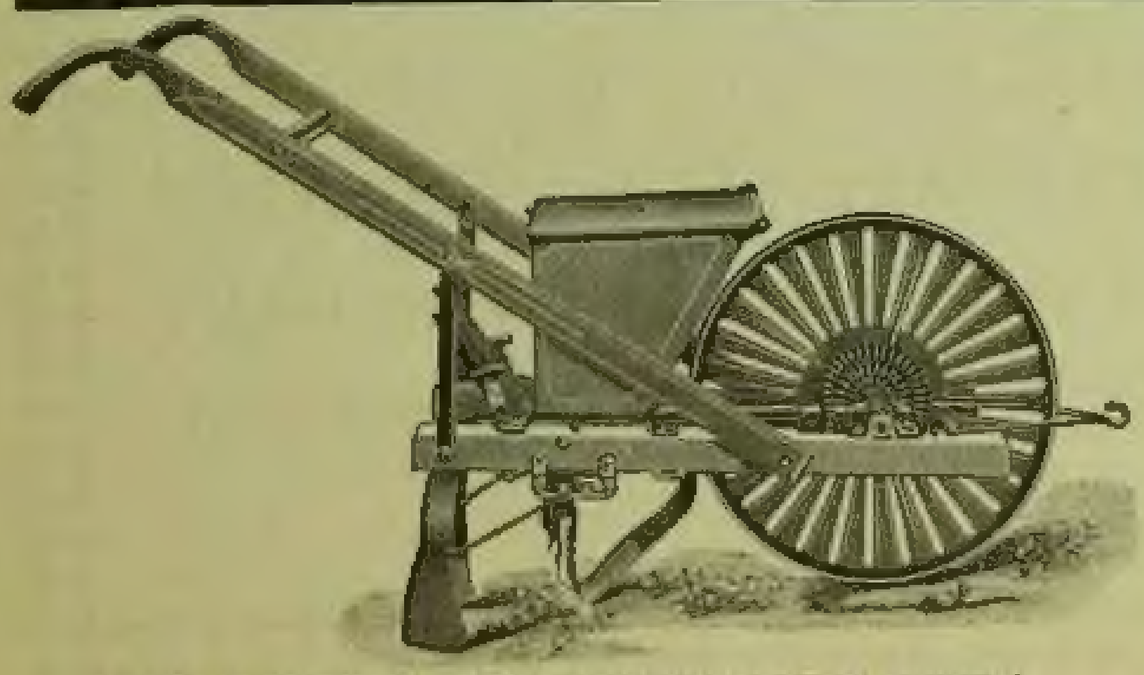


We have been the **LEADERS** in this class of machinery for about **forty years,** and this year our products are further ahead than ever.

Sandwich Mfg. Co., = Sandwich, Ill.

BRANCH HOUSES.

KANSAS CITY, MO. COUNCIL BLUFFS, IA. SIOUX CITY, IA.



THE EMPIRE COMBINED CORN DRILL.

THE EMPIRE

Is designed for long service under the most exacting conditions. It may cost a little more to begin with, but in the long run it is the most economical.

Wherever Corn is Raised, it is Needed.

The Drop is the equal of any. The Fertilizer is the "Marks," which has no equal.

It is light weight, strongly built, well proportioned, nicely finished, and satisfies everybody, every time.

Do you sell it? If not, do so; it will pay. Ask for circulars and prices.

Empire Drill Co.

SHORTSVILLE, N. Y., U. S. A.

The merry hum of the machinery, and the many signs of activity in and about the great works of the

WALTER A. WOOD

Mowing & Reaping Machine Co., at Hoosick Falls, N. Y.

Are indicative of renewed vigor and commercial enterprise in producing a large supply of their celebrated machinery consisting of

Open Rear Binders, Enclosed Gear Reapers, Tubular Steel Mowers, Self Dump and Hand Dump Rakes and Tedders—

A sure indication to the farmers of the world that the supply of the celebrated WALTER A. WOOD Harvesting Machines and Extra Parts will be ample to meet all demands for the season of 1896.

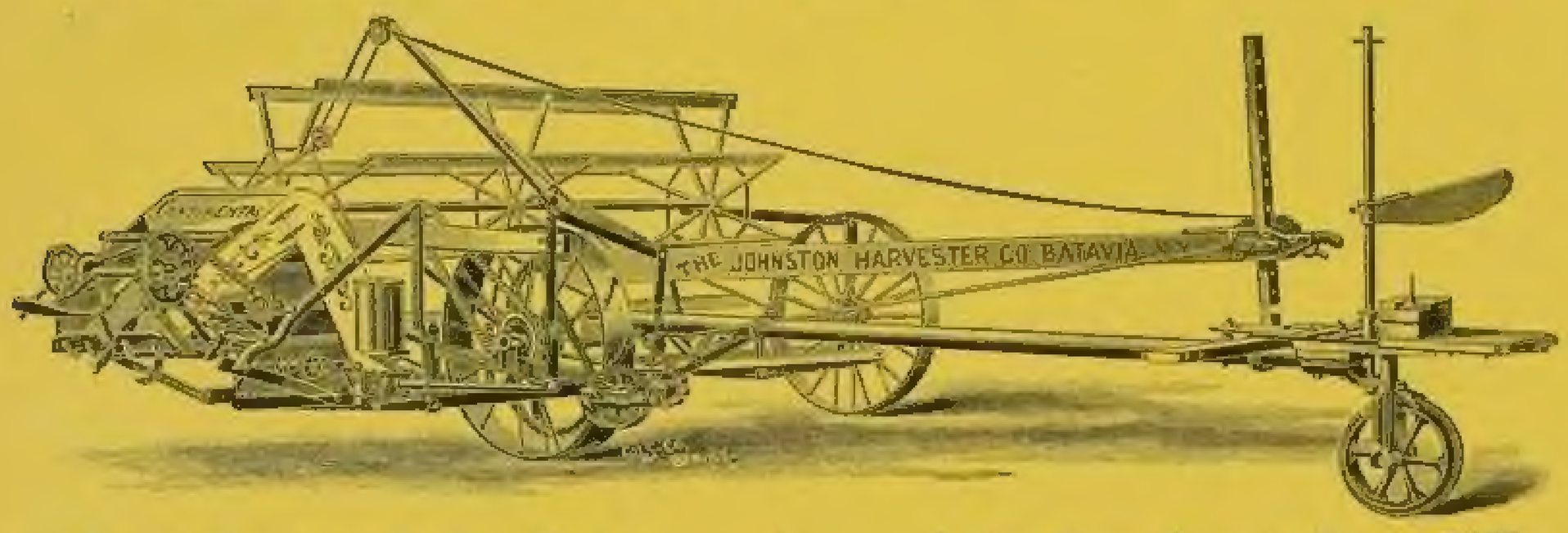
THE PLANT OF THE WALTER A. WOOD HARVESTER COMPANY, ST. PAUL, MINNESOTA, IS TURNING OUT MINNIE BINDERS AND . . . WALTER A. WOOD CYCLONE MOWERS, TUBULAR STEEL MOWERS AND HAY RAKES FOR THE SEASON OF 1896 IN ALL THE PERFECTION FOR WHICH THEY ARE FAMOUS * AND IS PREPARED FOR SUPPLYING TO THE TRADE EVERY MACHINE AND PART WANTED IN THIS EXTENSIVE AND MATCHLESS LINE. * * * * * * * * * * *

3-31-96

— FARM · MACHINERY —

THE "GIANT"

Combined Header AND Binder



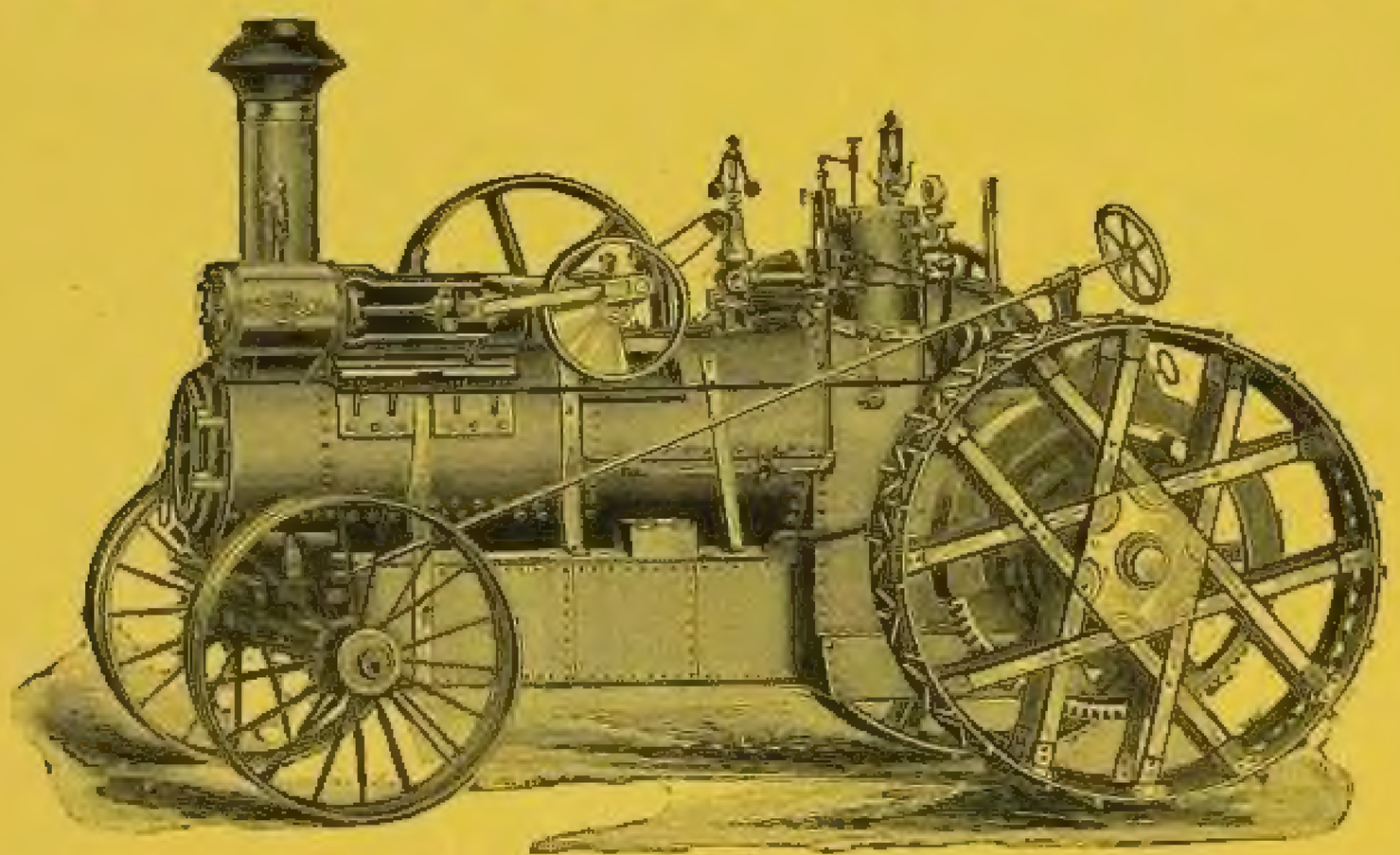
A Perfect Header, a Perfect Binder. ✳ **Dealer, Your Opportunity is NOW**

The "Giant" is in no sense an **Experimental** Machine, but a Demonstrated and Practical Success. . . . .

SEND FOR CATALOGUE AND SECURE THE AGENCY.

THE JOHNSTON HARVESTER CO., BATAVIA, N.Y. U. S. A.

We Have It!



The best all around **Traction Road Engine** there is on earth. The only engine with open faced driving wheels. Boiler entirely mounted on springs. The most economical boiler in use. The only engine adapted to all kinds and conditions of roads.

For full particulars and catalogue free, write to

THE NEW BIRDSALL COMPANY, - - Auburn, N. Y.

OR BRANCH HOUSES: ST. LOUIS, MO., 316 SOUTH EIGHTH STREET. TOLEDO, O., 234 LYNN STREET.
THE DONALDSON MFG. CO., LOUISVILLE, KY. FOND DU LAC, WIS., 20 AND 22 THIRD ST.

— FARM · MACHINERY —

A Chain is no stronger than its weakest link.

A Twine is no stronger than its weakest "Fault."

Deering Twine has no faults or weak places.

It is made by new machines and processes in the immense NEW Deering twine mills, in a way that insures **evenness of strand, correct length per pound, beauty of finish** and superiority in every way to the best twine made by the old style mills. Every ball of Deering Twine is just what the tag says it is.

Deering Roller and Ball Bearing Machines give the Agent handling them the cream of the trade. . . .

Deering Harvester Co.

Fullerton and Clybourn Avenues, CHICAGO.

ACME. The Highest Obtainable Point of Excellence. . .

That's what our machines are, and that's what They have been for thirty-six years. . . .

Acme Light Binder is at once the lightest and strongest made. It is not an old machine remodeled but a new one from the ground up. It embodies in its construction everything that is new and up to date. Much that was superfluous in the old style binders has been dispensed with, and much that is new, is here first introduced to the public.

Acme Mower is strong, of light draft, and well balanced throughout. All gearing enclosed—no danger to driver. Weight of outer end of cutter bar is counterbalanced completely by an enclosed spring on shoe,—absolutely no side draft,—investigate this, t'will interest you. It's entirely new. Our new foot lift is simple but effective, while hand lever will throw bar high enough to pass all obstructions.

Hodge's Header first appeared before the public 36 years ago—early became a favorite and has continued to remain so. The push beam is of hollow steel and is at once light and strong,—cannot warp, twist, or break—always true and in line. Power is applied with a chain gear which is always direct, easy, powerful. No trouble to tilt cutter bar with our new equalizing spring to cut high or low.

"Maud Muller" self dump and "Ell" hand dump all steel rakes possess points of particular merit. Easiest trip device ever conceived, automatic positive lock. Weight of driver helps dump 58 inch wheels—think of what a hay basket this insures. Nor is this all: The frame is forged from a solid steel angle and head is of an exceptionally strong stiff steel angle. Combination pole and shafts. Crucible steel teeth tempered in oil. Handsome in appearance, effective in operation and simple in construction.

Monarch and Acme Sweep Rakes do their work like new brooms. Mechanically made upon scientific principles, of best material by skilled workmen, for a practical purpose—which they have served ... over sixteen years.

We can't in this small space tell you all about our product, but know you will be interested in our new and handsomely illustrated catalogue which goes more into details. Write for it to day.

ACME HARVESTER CO.,

PEKIN, ILL.

9-3-96

— FARM · MACHINERY —

Three Great Sellers!

The FAMOUS OHIO SULKY CULTIVATOR.

Five Times As Many Sold In 1896 As Any Other. Branch Houses Near You. Write For Our Large Catalogue And Price List.

Its Record: 100,000 In Use. No Change For Six Years. Simple In Construction. Perfect In Operation. It Never Has Had An Equal. Built in All Styles.

The OHIO Steel Land Roller.

Has proved the greatest seller of the day. No good farmer can afford to be without one.

Order a sample.

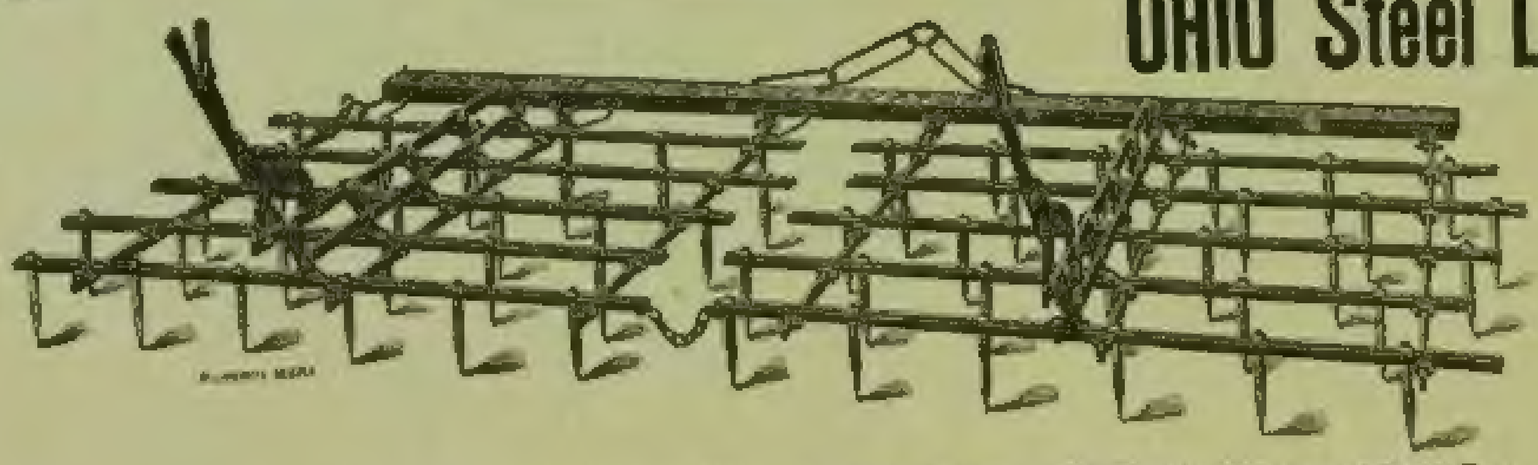
Half labor is saved and a larger crop is insured by putting ground in order.

Heavy Steel Axle, Seasoned White Oak Weight Box. Adjustable and Self-oiling Boxing. Strong and Durable. Nothing better.

Built in Four Sizes.

6, 7, 7½ and 8 Foot.

OHIO Steel Lever Harrow.



Thirty Teeth in each Section.

All Sections Alike.

Beams—Best Grooved Steel. Castings—All Malleable. Teeth—Best Steel, Diamond Shape. It's O. K. and can't be beat.

Order Samples and be Convinced of Their Merits. Illustrated Catalogue Sent Free. Address

THE OHIO CULTIVATOR CO., - Bellevue, Ohio.

Don't Fail to See Them on State Fair Grounds. Mention this paper.

Orange streets, for the Barnes Cycle Co. The building will be 89x57 feet and will cost upwards of $10,000.

Chicopee Falls (Mass.) Wheel Co. held its first annual meeting recently and the following officers elected: President, George S. Taylor; vice-president, Francis E. Bennett; treasurer and manager, Charles C. Abbey; superintendent, T. Murphy.

Field Flowers.

"FIELD FLOWERS," published under the auspices of Mrs. Eugene Field, with the approval of the Monument Committee, for the purpose of creating a fund, the proceeds of which will be equally divided between the family of the late Eugene Field, and the fund for the building of a monument to the memory of the beloved poet of childhood.

The committee organized for building a monument to Eugene Field, the poet laureate of childhood, is composed of the editors and proprietors of each of Chicago's daily papers. A large number of the leading citizens of the country suggested that it would also be well at the same time to show the love of all men for Eugene Field and his works by providing in a measure for his family. An honorary membership was then appointed to the Monument Fund, comprised of prominent men and women all over the country, and it was then decided to divide the fund created equally between the family of the late Eugene Field and the fund for the building of a monument to the memory of the beloved poet of childhood. It was the first intention to merely publish a beautiful four-page certificate of a subscription of $1.00 to the fund.

Mr. Melville E. Stone, general manager of the Associated Press, desiring to secure the co-operation of about four or five of America's greatest illustrators, wrote to thirty-two of the great artists to secure their assistance, thinking that out of this number possibly four could be found who would be able to find time to comply, knowing that illustrators of such ability have their time engaged three, five, and eight months ahead. To the surprise of the committee the response from the artists was immediate and unanimous. Each one in writing spoke of the esteem, love, and friendship felt for a mind so great and a heart so true, and were glad to have the honor of assisting in a testimonial to his worth. The committee, instead of having a few drawings to embellish a certificate, found themselves with $15,000 worth of drawings, each one illustrating some verse or poem of the dead poet.

It was then found necessary to increase the souvenir to a cloth-bound, die-stamped, 40-page book, which, while typographically perfect, and containing some of the brightest gems of Eugene Field, is probably the greatest medley of modern art appearing in any one publication, and the committee was enabled by this means to issue at a profit to the fund for $1.00 a book that $7.00 would not have paid for under other circumstances.

The original drawings are now being exhibited in the different large cities, and are attracting universal attention.

The souvenir, "Field Flowers," may be had at the bookstores at the price, $1.00, or of the Eugene Field Monument Fund, 180 Monroe street, Chicago; 10 cents extra for postage.

Farm Implements in India.

If the manufacturers of plows in England could produce an article totally different from the well-finished, handsome plow they turn out, and which would penetrate the ground and tear it up in some way, regardless of an even-turned furrow, or the covering of all grass, we feel certain that a good business could be done.—Calcutta Correspondent, British Trade Journal.

Prescott, the capital of Arizona, boasts that it is the nearest approach to the New Jerusalem, as described in the Bible, as its streets are being paved with gold. The granite used for pavements contains $4 in gold and 20 cents in silver to every ton, so that in time, when less expensive methods of reducing ores are used, it may pay the city to tear up and crush its street pavements.—National Recorder.

. . . THE . . .

America!

Riders and Dealers

. . . appreciate

A Bicycle

With Up-to-Date IMPROVEMENTS and

That is Built
That Runs . .
That Looks .
That Stays .

Right

THE AMERICA models include not only the usual straight bar frames, but the ORIGINAL and IMPROVED "TRUSS" frame, made and patents owned by the

America Cycle Mfg. Co.

73-75-77 Fulton St. CHICAGO, ILL.

Under the personal supervision of the inventor thereof.

GENERAL AGENCIES.

B. B. EMERY & CO.,	Boston, Mass.
UNION NUT AND BOLT CO.,	New York City.
E. H. TRYON, JR. & CO.,	Philadelphia, Pa.
HOUSE & HERRMAN,	Wheeling, W. Va.
H. L. & E. E. HUNT,	Pittsburgh, Pa.
PENN CYCLE CO.,	Erie, Pa.
FRANCIS J. HUGHES,	Rochester, N. Y.
GEORGE H. TERRY,	Oswego, N. Y.
A. C. ANDERSON & CO.,	Toronto, Ont.
ADAMS & HART,	Grand Rapids, Mich.
RAY M. HEWITT,	Detroit, Mich.
W. B HOLTON MFG. CO.,	Indianapolis, Ind.
J. H. FALL & CO.,	Nashville, Tenn.
RHEA, ELTON & THIELENS,	Peoria, Ill.
R. J. ROSWELL,	St. Louis, Mo.
AULTMAN, MILLER & CO.,	Dallas, Tex.
BRADLEY, WHEELER & CO.,	Kansas City, Mo.
BRADLEY, CLARK & CO.,	Minneapolis, Minn.
DAVID BRADLEY & Co.,	Council Bluffs, Ia.
BRAY BROS.,	Cedar Rapids, Ia.
McKEE BROS.	Denver, Colo
MATHEWS IMPLEMENT CO.,	Los Angeles, Cal'
SERRANO & ZOZAYA,	City of Mexico

For SPECIAL DISCOUNT mention FARM MACHINE

11-3-96

— FARM · MACHINERY —

GENUINE Sandwich Shellers

40 Different Styles and Sizes. For Hand, Horse and Steam Power.

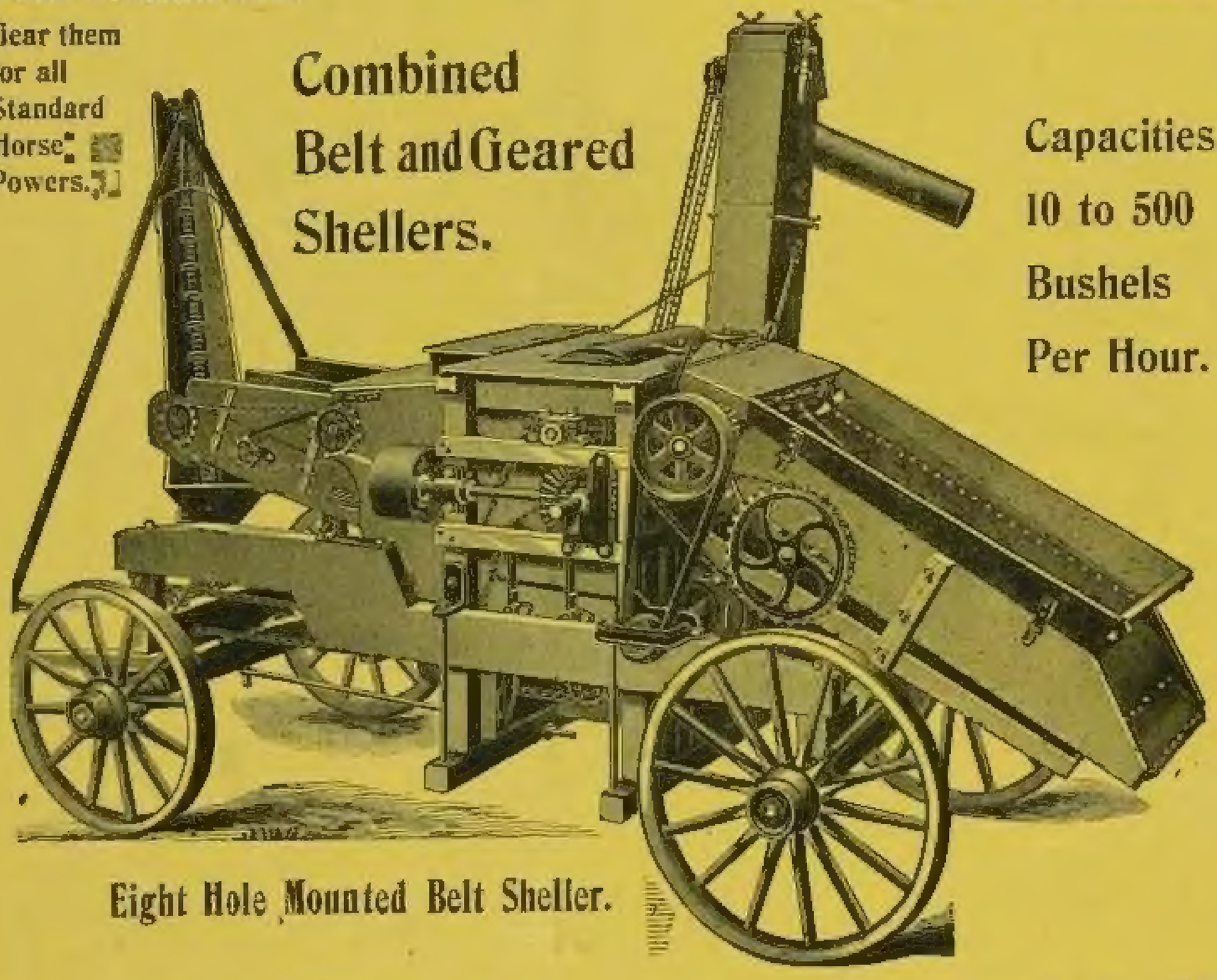
BEST MADE BEST KNOWN

Gear them for all Standard Horse Powers.

BEST WORKERS BEST SELLERS

Combined Belt and Geared Shellers.

Capacities 10 to 500 Bushels Per Hour.



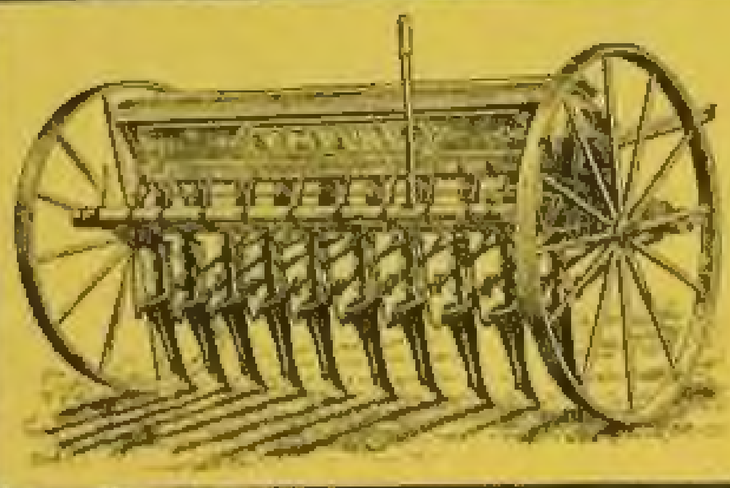
Eight Hole Mounted Belt Sheller.

Sandwich Mfg. Co., = = Sandwich, Ill.

BRANCH HOUSES.

KANSAS CITY, MO. COUNCIL BLUFFS, IA. SIOUX CITY, IA.

DON'T FORGET



A STRAIGHT STORY
OF STRAIGHT GOODS
IN A STRAIGHT MANNER

is bound to bring us business. If you want a grain drill, or a grain and fertilizer drill that is always reliable and never disappointing

Take the Empire.....

The Best Dealers sell them, the Best Farmers use them. They are made in all sizes and styles. Ask for circular

EMPIRE DRILL CO., Shortsville, N. Y., U. S. A.

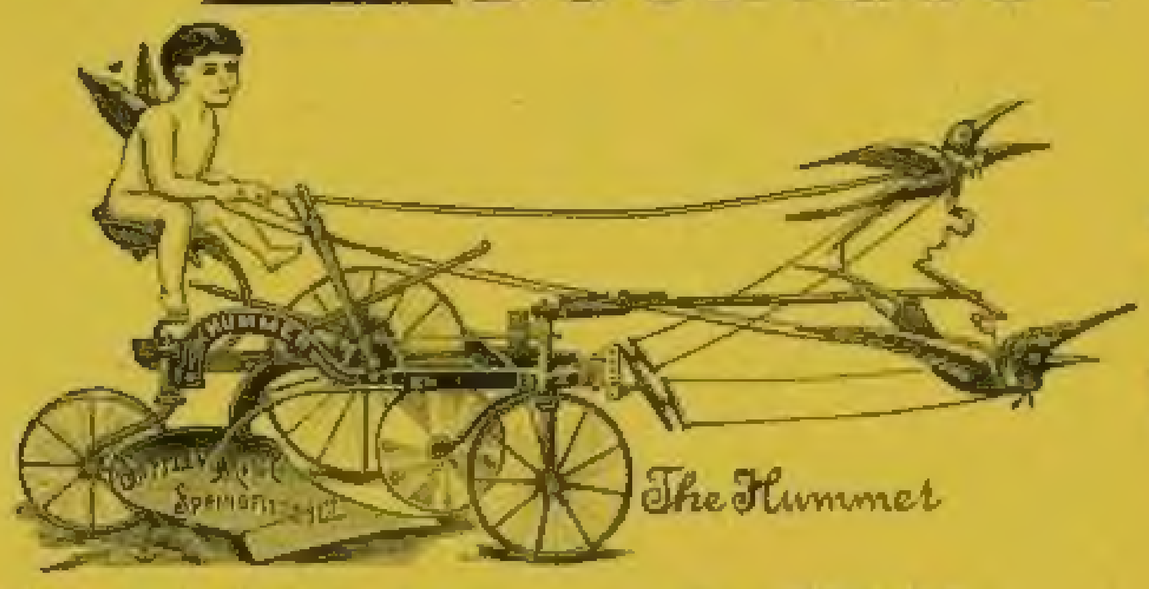
DON'T FORGET DON'T FORGET DON'T FORGET

— FARM · MACHINERY —

IT'S ALL OVER NOW!

HOW ABOUT BUSINESS?

YOU KNOW



SATTLEY MAKES THE BEST.

If you are not satisfied with what you are selling **TRY US.**
If you are satisfied and want something better **TRY US.**

We make Riding and Walking Plows. Riding and Walking Cultivators, Corn Planters, Harrows, Shoveling Boards and Straw Stackers.

All Winners And All Hummers.

Address
SATTLEY MFG. CO., Springfield, Ill., U. S. A.

'X Rays' Sulky Plow

A "HIGH LIFT"—NOT TOO HIGH, BUT JUST HIGH ENOUGH.

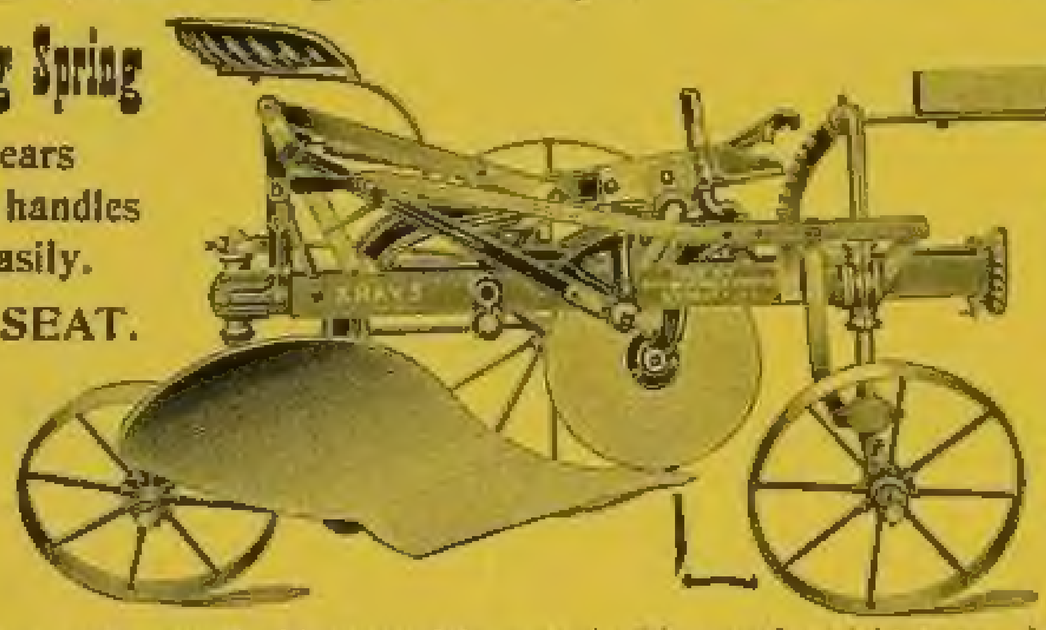
There is such a thing as overdoing it. Send for our circular telling how.

Has Lifting Spring

A boy 12 years old handles it easily.

LARGE SEAT.

SELLS ON . . SIGHT.



From 50 to 100 Pounds lighter Draft than Any other.

Has the . . Celebrated "Garden City Clipper" Bottom

A boy can easily raise the Plow out of the ground with a man's weight on top of the moldboard.

This plow took First Premium at Nebraska and Iowa State Fairs; at Kankakee, Ill., and Chickasaw, Ia., County Fairs, and at the Wheatland and Big Rock, Ill., Plowing Matches this Fall.

SEND FOR DESCRIPTIVE CIRCULAR AND PRICES.

DAVID BRADLEY MFG. CO., Bradley, Ill.,

BRANCH HOUSES: { DAVID BRADLEY & CO., Council Bluffs, Ia.
BRADLEY, WHEELER & CO., Kansas City, Mo.
BRADLEY, CLARK & CO., Minneapolis, Minn.

3-31-96

— FARM · MACHINERY —

The Fast Working

SOUTHWICK HAY PRESS.

Sell One And It Will Sell More.

Actual working Capacity 12 to 16
TONS PER DAY.
Easy and Safe in Feeding.
Durable in working. Economical.

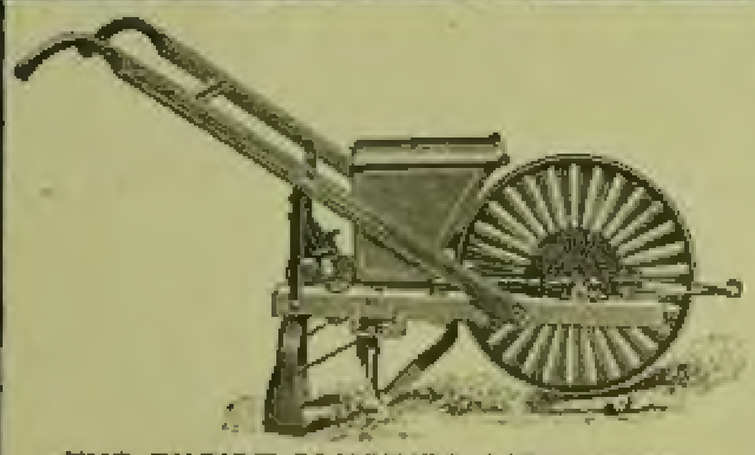
Construction Simple,
Draft Light.
FORTY INCH Feed Opening.
Write for Catalogue and Discounts.

Sandwich Mfg. Co., = = Sandwich, Ill.

BRANCH HOUSES.

KANSAS CITY, MO. COUNCIL BLUFFS, IA. SIOUX CITY, IA.

DON'T FORGET



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The EMPIRE

Is designed for long service under the most exacting conditions. It may cost a little more to begin with, but in the long run it is the most economical.

. . . **Wherever Corn is Raised, it is Needed.** . . . .

The Drop is the equal of any. The Fertilizer is the "Marks," which has no equal.

It is light weight, strongly built, well proportioned, nicely finished, and satisfies everybody, every time.

Do you sell it? If not, do so; it will pay. Ask for circulars and prices.

EMPIRE DRILL CO., Shortsville, N. Y., U.S.A.

DON'T FORGET

FARM MACHINERY

BICKFORD & HUFFMAN CO., MACEDON, N. Y. & BALTIMORE, MD.

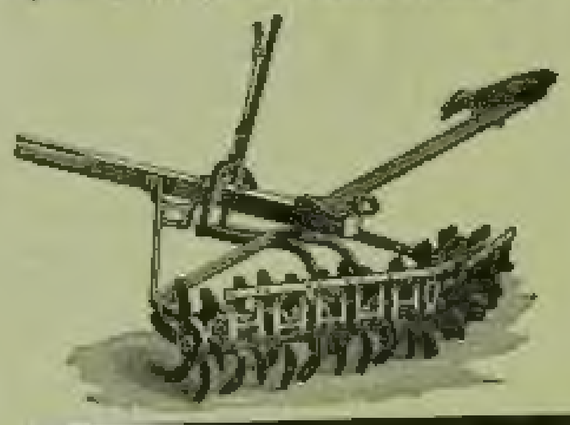
Will, upon request, mail catalogue and poster of the best and finest

GRAIN DRILLS

on earth. A reputation made in more than forty year's public service stands as a guarantee of claims.

The Morgan ..... Patent

SPADING HARROWS.



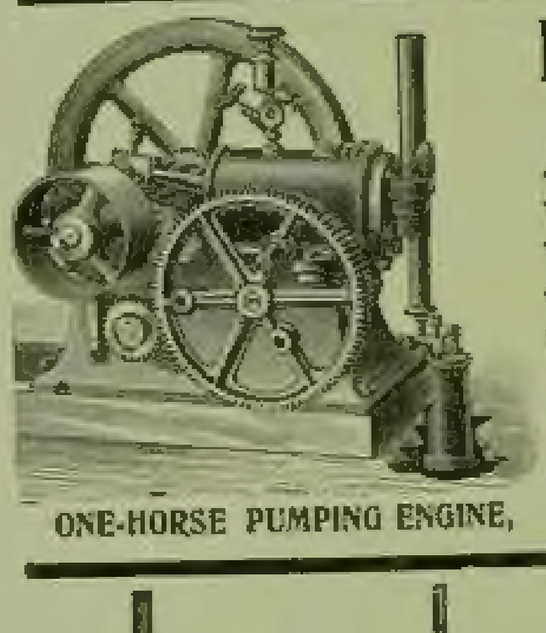
Also Disc Harrows, or both at small additional cost.

For territory east of Indiana and Alabama except Michigan.

First-Class Harrows in Every Respect. Ask us for Particulars.

We build Plows, Weeders, Hay Rakes, Etc.

WIARD PLOW CO., Batavia, N. Y., U. S. A.



ONE-HORSE PUMPING ENGINE.

HAVE YOU SEEN ONE? DON'T YOU NEED ONE?

A GASOLINE ENGINE for your farm or for other work. It is just the thing for farm use. Water when you want it. Will pump as much as a 12 foot wind mill with fair wind at a cost of one cent per hour Will run a grindstone, corn sheller or do any one horse power work. NO DANGER. CAN BE RUN BY ANYONE. Our engines are sold on their merits and power guaranteed. We were awarded the highest prize at the last Iowa State Fair on our engines.

WE MAKE ALL SIZES, STATIONARY AND PORTABLE.

Write for Illustrated Catalogue and Price List to

The Waterloo Gasoline Engine Co., Waterloo, Ia.

DEMPSTER MILL MFG. CO. . .

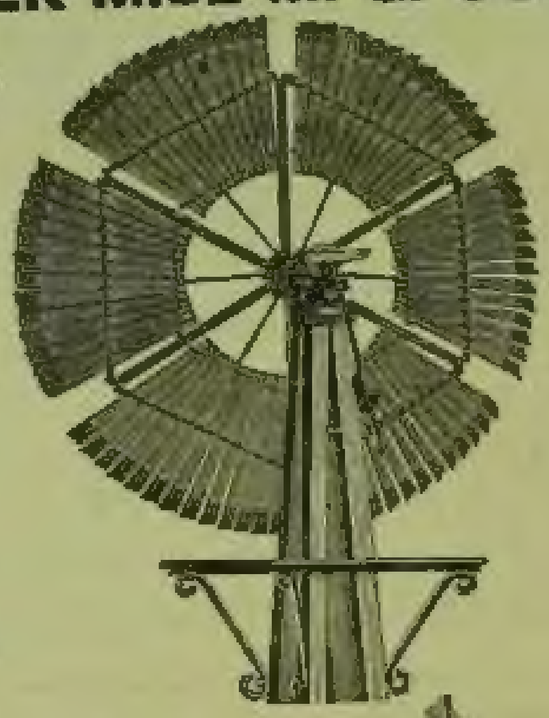
Beatrice, Neb.

Des Moines, Iowa.

Florence, Ala.

We manufacture a complete line of

Iron Pumps,
Wood Pumps,
Cylinders,
Wind Mills,
Water Tanks,
Hydraulic
Well Boring
Machines,
Tubular
Well Supplies.



We also carry a Complete line of Everything Pertaining to

Farm Water Supplies.

Write for Catalogue and Prices.

Dempster's Peerless Cylinder.

THE WONDER OF TO-DAY OVERTOPS THE
TRIUMPHS OF TWENTY CENTURIES AGO

Monarch Bicycles

A MARVEL OF
MECHANICAL SKILL

FOUR STYLES $60.00 & $100.00

MONARCH CYCLE MF'G CO.
CHICAGO,
NEW YORK, SAN FRANCISCO, TORONTO.

TRADE NOTES.

ST. LOUIS.

Business still holds very active with the Parlin & Orendorff Co., and the office and shipping forces are working fourteen hours out of every twenty-four—Sundays, of course, excepted

E. L. Galt, manager of the Keystone Mfg. Co., was found at his desk, busy attending to orders that had to be shipped out at once. His house is, as usual, doing a good business in the famous Keystone Line. Mr. Galt notices one feature that smacks a little of conservatism, and that is that the dealers are, some of them, buying in quantities that will of necessity cause some delay in getting goods later on, and when they will be compelled to have them quick or else miss a sale.

Major T. L. Carondan, resident manager of the Plano Mfg. Co., expresses himself as being well pleased with trade so far in 1896. The recent spell of bad weather affected his business to some extent, owing to the fact that salesmen could accomplish little in hurrying up the farmers. He notes no especial change as yet in the twine situation, although some talk of a slight decline in prices. The dealers are in good spirits, and are working in a manner that will insure a good business, unless something now unseen happens to counteract their efforts.

A. Weber, with Manson & Tebbetts Implement Co., remarked to a Farm Machinery representative that his firm was just beginning to see daylight. "From early in December," he added, "we have been kept on the jump early and late. In the vehicle department we are still compelled to work overtime to keep anywhere near in sight. Our White Elephant cars have been a great factor in bringing about this state of affairs, and they are growing in popularity with the dealers every day. They like to get all their goods, vehicles and implements in one car."

L. R. Orr, assistant manager of Kingman & Co., was about as busy a man as there was to be found in St. Louis last Saturday, but he happens to be one of those energetic fellows who are happiest when busiest. He says that trade with his house is very satisfactory, showing a handsome gain over that for same time last year. Last week the company made a fine shipment of feed cutters and corn shellers to our sister Republic, Mexico. This big house is also doing a pleasing busines in vehicles. It has the happy faculty of offering for sale just such jobs as the dealer wants, not going to the extremes in either high or low priced goods.

ELSEWHERE.

S. M. Mitchell has sold his implement business in West Liberty, Ia.

E. T. Parkhurst, has engaged in the implement business at Salem, Ore.

Robert & Keck is a new implement and seed firm of Kansas City, Mo.

John H. McKelvy has sold out his implement business in Larchwood, Ia.

E. W. Ashley Galveston, Ind., has embarked in the implement business.

Moorhead & Turner have opened up a new implement store in Sabetha, Kan.

Thomas Hewitt is preparing to open a retail implement store at Anderson, Ind.

Senn & Plum have succeeded to the implement business of M. Plum, Shelby, Ia.

Fox & Green, the implement firm of Creighton, Neb. have dissolved partnership.

William White has opened a new implement store at

. . . THE . . .

America!

Riders and Dealers

. . . appreciate

A Bicycle

With Up-to-Date IMPROVEMENTS and

That is Built
That Runs . .
That Looks .
That Stays .

Right

THE AMERICA models include not only the usual straight bar frames, but the ORIGINAL and IMPROVED "TRUSS" frame, made and patents owned by the

America Cycle Mfg. Co.

73-75-77 Fulton St. CHICAGO, ILL.

Under the personal supervision of the Inventor thereof.

GENERAL AGENCIES.

E. E. EMERY & CO.,	Boston, Mass.
UNION NUT AND BOLT CO.,	New York City.
E. K. TRYON, JR. & CO.,	Philadelphia, Pa.
HOLME & HERRMAN,	Wheeling, W. Va.
H. L. & E. HUNT,	Pittsburgh, Pa.
PENN CYCLE CO.,	Erie, Pa.
FRANCIS J. HUGHES,	Rochester, N. Y.
GEORGE H. TERRY,	Oswego, N. Y.
A. C. ANDERSON & CO.,	Toronto, Ont.
ADAMS & HART,	Grand Rapids, Mich.
RAY M. HEWITT,	Detroit, Mich.
W. B. HOLTON MFG. CO.,	Indianapolis, Ind.
J. H. FALL & CO.,	Nashville, Tenn.
RHEA, ELTON & THIELENS,	Peoria, Ill.
B. J. HOWELL,	St. Louis, Mo.
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For SPECIAL DISCOUNT mention FARM MACHINE

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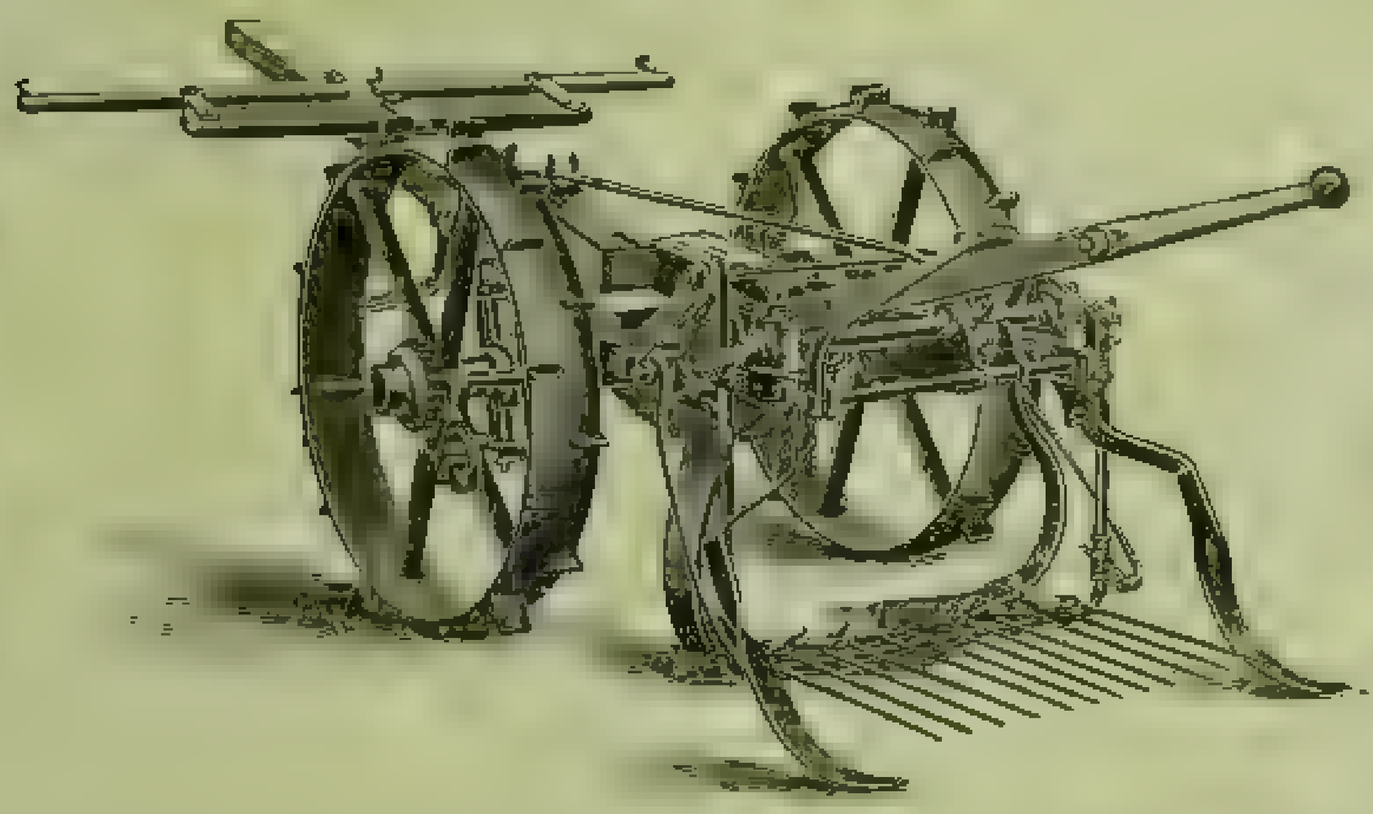
The Standard (Cummings' Patent) Low Down Potato Digger.

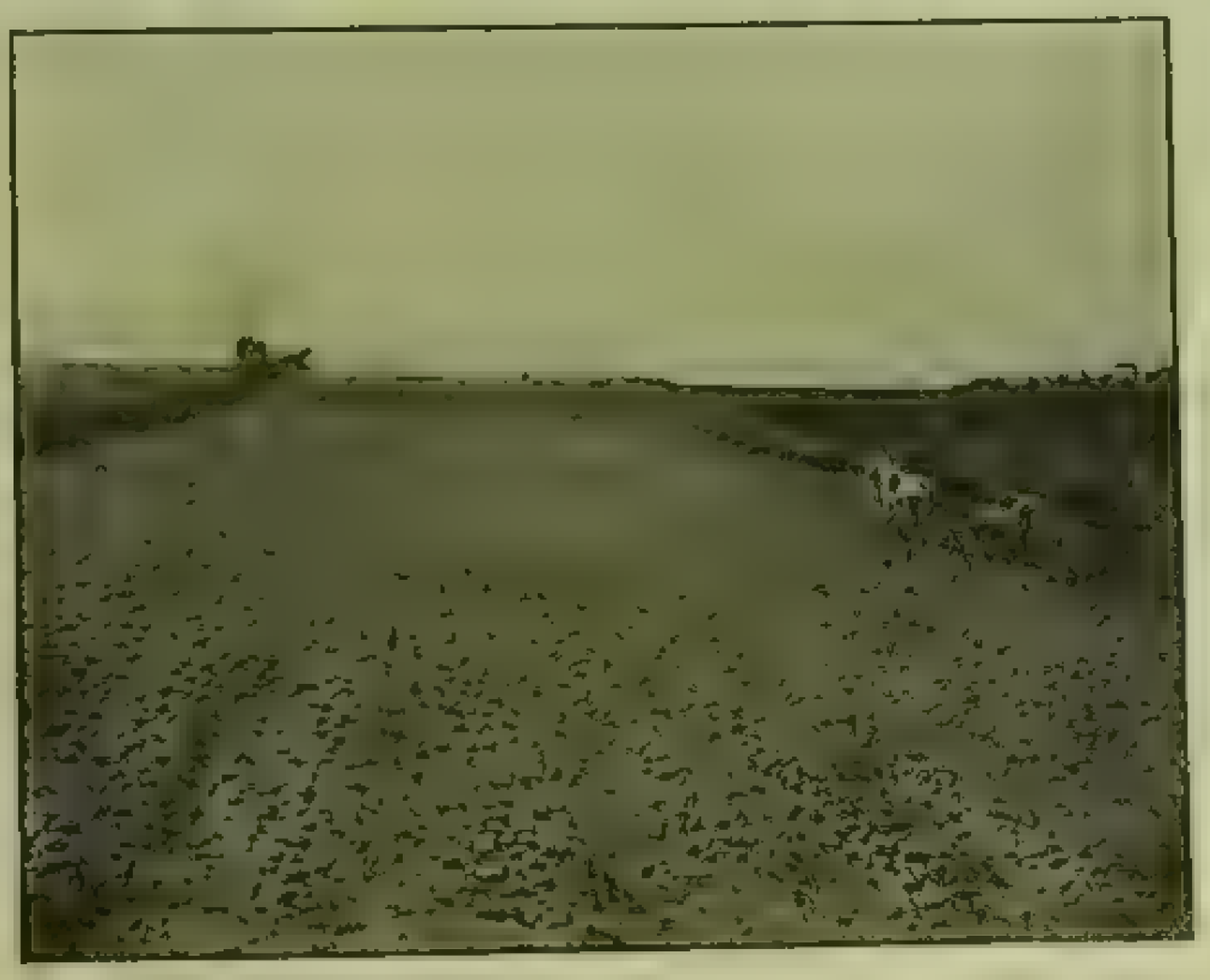
Always in the Lead.



Best Potato Digger Made.

The Standard (Cummings' Patent) Low Down Potato Digger.

THE ONLY SUCCESSFUL POTATO DIGGER IN THE WORLD.



Taken from a Photograph of the Standard (Cummings' Patent Low Down Potato Digger, at work on a farm near Rochester, N. Y.

WE HAVE SECURED THE ENTIRE CONTROL OF THE CUMMINGS PATENTS IN THE UNITED STATES, AND ARE PREPARED TO FURNISH OUR CUSTOMERS WITH THE .... **ONLY .... SUCCESSFUL DIGGER EVER .. INVENTED.**

EVERY MACHINE GUARANTEED AND ALL PARTS INTERCHANGEABLE

SEND FOR CATALOGUE AND SECURE EXCLUSIVE TERRITORY.

MANUFACTURED BY

THE STANDARD HARROW CO.,

Kalamazoo, Mich. ✳ UTICA, N. Y. ✳ 3 and 4 Sherman Street Chicago, Ill.

FARM · MACHINERY

a rapid course this season, and is particularly visible in Minnesota and Texas. W. J. Ball, the manager, is brim full of Chicago hustle, and he keeps the Meteor whizzing

Mr. Trask has sold his interest in the Congress Cycle Co. Henderson, Ind., and it is reported will [illegible] his business [illegible] Hartford City, Ind.

Spear & Walker, Burlington, Vt., will add a repairing department and enlarge their present quarters. The growing bicycle trade in that locality necessitates this change.

The Castle Wheel Co. has been incorporated to manufacture bicycles at Jersey City, N. J., with a capital stock of $10,000. It will do a general repairing and exchange business.

The Chicago (Ill.) Handle Bar Co. has been incorporated by George W. Webster, Thomas W. Prudenville and Edward J. Walsh, to manufacture bicycles, handle bars, etc., with a capital stock of $25,000.

The Dupont Cycle Co., Washington, D. C., J. Hart Brittain, manager, has sold out to the Pope Mfg. Co. Mr. Brittain will remain as manager. The Dupont Cycle Co. is one of formerly local agencies of the Pope Mfg. Co.

The Twentieth Century Mfg. Co. has been incorporated to manufacture bicycles at Jersey City, N. J., by Jerry B. Fleet, Chas. R. Lee and B. C. Davis, of Brooklyn, and Chas. Helle, of New York, with a capital stock of $100,000.

The Record bicycle, manufactured by the Baker Co., Butler, Ind., is a machine of which every part is built upon honor. The finest and best material that can be found is used in every part, and is a machine that is well worthy the claims its makers put forth, that is, "a superb wheel at a living price." The dealer looking for a wheel that runs easily, and sells easily, will do well to investigate this. Handsome catalogue mailed free on application.

The Bicycle Girl.

She glides like a dream from my vision
In the morning all dewy and gray;
A nymph from the gardens Elysian
She flashes and flashes away!
Past meadows and groves, where the singing
Of birds all melodious swells,
My heart hears the silvery ringing
Of the beaut ful bicycle bells!

She's a bicycle, bicycle girl,
With hair of the loveliest curl
She's fresher than clover
My heart she rides over
She's a bicycle, bicycle girl!

Her cheek with the crimson is glowing—
With all that the rose could impart,
The breeze—the mad wanton!—is blowing
A kiss and a curl to my heart
Past meadows, where wild birds are winging
Their way, over velvety dells
She glides, with a ravishing ringing
Of the silvery bicycle bells!

She's a bicycle, bicycle girl,
With hair of the loveliest curl,
She's fresher than clover
My heart she rides over
She's a bicycle, bicycle girl!

Philadelphia Times.

A vulgar man is random and jealous; eager and impetuous about trifles. He guesses himself to be slighted thinks everything that is said is meant at him; if the company happens to laugh, he is persuaded they laugh at him; grows angry and testy, says something very impertinent and draws himself into a scrape. He should, what he is a proper spirit, and asserting himself—it would

WE ARE ONE OF THE OLDEST AND BEST BUGGY AND BICYCLE HOUSES IN INDIANA.

We make The BEST for The LEAST Money.

RUNS the EASIEST. LAST the LONGEST

Write for our Prices and Catalogue . . . .

. . Our 1896 Wheels are Sellers and Right up to Date.

W. B. HOLTON MFG. CO., Indianapolis, Ind.

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NEVER DISAPPOINT. . . .

QUALITY.—The quality of a machine finds expression in numberless things other than the color of its enamel or the style of its name-plate. Show us the dealer who is careless as to the machine he buys, who thinks only of the "size of the discount," who cares naught for the stability of the future, and we will show you a man who doesn't sell

THE Andrae CYCLES

These machines are not in that class. Andrae cycles bear evidence of the high mechanical ingenuity, painstaking care and thought that is liberally spent upon them

JULIUS ANDRAE & SONS CO. Milwaukee, Wis.

SYLPH and OVERLAND CYCLES

AN ABSOLUTELY COMPLETE LINE.

SUNDRIES.

No. 12 Overland Strictly High Grade, 24 lbs., $75.00

EXCLUSIVE TERRITORY. CATALOGUE FREE

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1719 Main Street.

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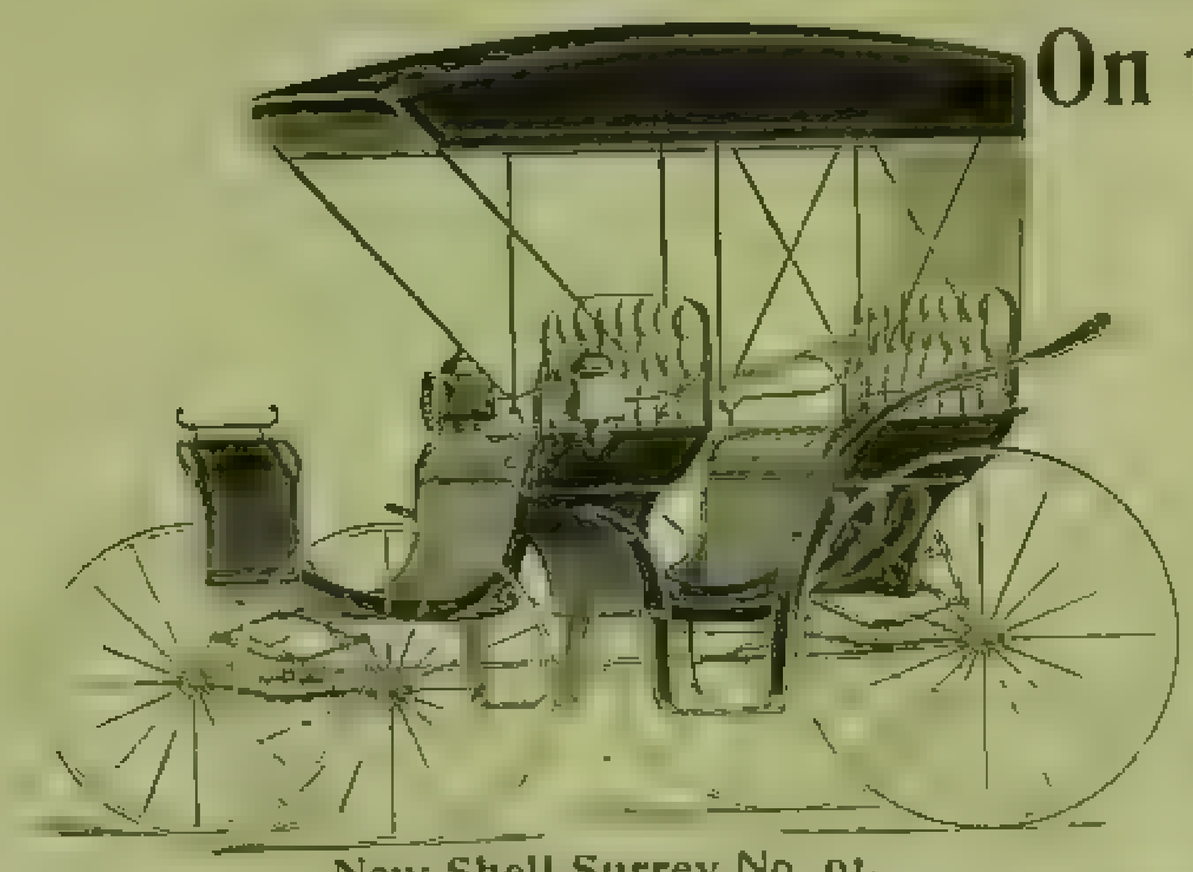

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On the Track

AND STILL IN THE LEAD.

D. M. Sechler Carriage Co.,

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Make the largest variety of vehicles found in the West.

High Quality and Low Price.

Send for Catalogue of New Styles. . .

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Louisville, Ky.

Works cover 30 acres, constituting the Largest Factory in the World

Devoted Exclusively To the Manufacture of

Farm and Freight Wagons.

REGISTERED BRANDS:

"OLD HICKORY" FARM WAGONS,
In all Tracks and Styles. Established 1870.
300,000 SOLD TO DATE

"TENNESSEE" FARM WAGONS,
In Wide Track only. Established 1870—
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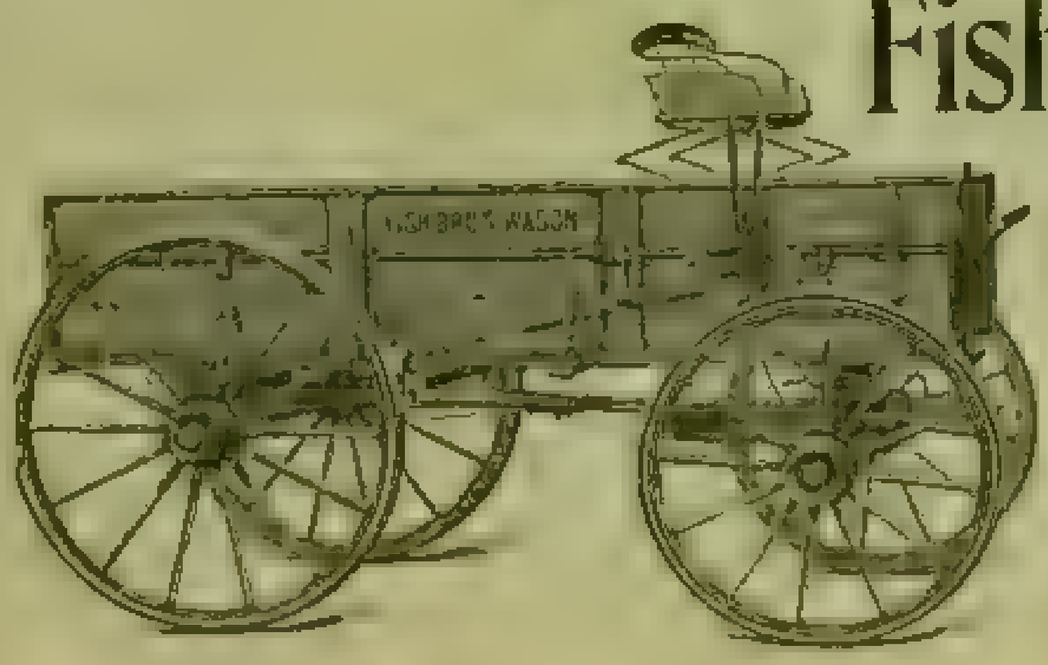
"KENTUCKY" FARM WAGONS,
In Narrow Track Only. Newly Established

Write for Prices. Mention this Paper

FISH BROS. WAGON CO., Racine, Wis., U. S. A.

Manufacturers of the ORIGINAL and GENUINE

Fish Bros. Wagons



A full and complete line of . . . . .

Special Delivery Wagons

. . . . . for every kind of business.

to quire for . . . .

Anything on Wheels

. . . Will receive prompt attention

MANSUR & TEBBETTS IMP. CO., St Louis, Mo
PARLIN & ORENDORFF CO., Dallas, Tex

FARM MACHINERY

Mr Stull says the bicycle will be a saving to the government for the reason no extra drivers for collection wagons will be needed, no expenditure for horse hire required, no charges for purchase of horse feed and the time given to cleaning and caring for horses will be saved, while the collections can be more quickly made.—Referee

Recent Railroad Earning.

Railroad earnings for January make about the best showing that has been presented in a long time. The roads in every section of the country show an increase, as compared with January, 1895, except the group of Eastern roads. Eastern trunk lines show a gain in gross earnings of over $1,000,000, which is an increase of nearly 8 per cent. The greatest gain however, so far as percentage is concerned, is made by the granger roads, which show an improvement of 21.8 per cent as compared with January, 1895. Next to Pacific roads showing an increase of 24.1 per cent compared with last year Western roads other than Pacific and granger lines also show a marked increase the percentage reaching 16.6. For the whole United States the gross earnings of all the roads for the month show an increase of $7,094,000, which reduced to a percentage basis, shows a gain of 1.1 per cent compared with a year ago. Canadian roads make a sharper gain than for the month than any group of the United States. They show a large gain in gross earnings of $1,476,000 with the percentage of increase 20.1.—Rand McNally Bankers Monthly

Do not forget that an advertisement in "perpetual motion," if it is good, will wear its way into the people's memory, with consequent results to you

DO YOU WANT

Export Trade?

CORRESPOND WITH ME. REFERENCES FURNISHED

THIRTY YEARS IN THIS TRADE.

C. K. TURNER, 73 Pearl Street, New York.

"Badger" Wheels Are Good Wheels.

Well Built.
Easy Running.
Finely Finished.
Prices Right.

Send for terms and catalog. . . .

BADGER CYCLE COMPANY, - Madison, Wis.

HIGH ART — HIGH TONED

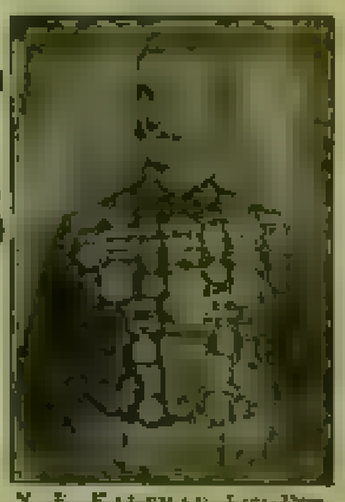
PUNNETT BICYCLES

Sizes, 20, 22, 24, 24, 26, 28, 28, 30 inches.

THE HIGHEST QUALITY ONLY.

THE PUNNETT CYCLE MFG. CO.

100 W Main Street, ROCHESTER, N. Y., U. S. A.



N. E. Kittredge, Jr.-Pres. World's Champion Trick Bicycle.

Herbert A. Punnett, Pres. & Gen. Manager, Originator of Fancy Riding and Bicycle Authority.

Sold Direct where we have no agent.

PRICE: Gents', $100 Ladies', 110 Specials, 125

Patented throughout the world. Easy to ride, more speed, strength and power. Weight about 40 pounds.

Two ladies, Two gentlemen, or One person can ride it

Difference in weight of 2 machines not after much so. Works equally well with chain and belt on either rear. In fact any person can ride You can take your friend for a ride even if he cannot keep a bicycle.

PRICE, - - - $150

What we have all waited for!

The Companion Side Seated Bicycle.

A GRAND SUCCESS.

TEMPLE BICYCLES

ARE THE BEST

FULLY GUARANTEED

BRANCH STORES IN EVERY LARGE CITY IN THE COUNTRY

CATALOGUE AND TERMS ON APPLICATION

Ralph Temple Cycle Co.

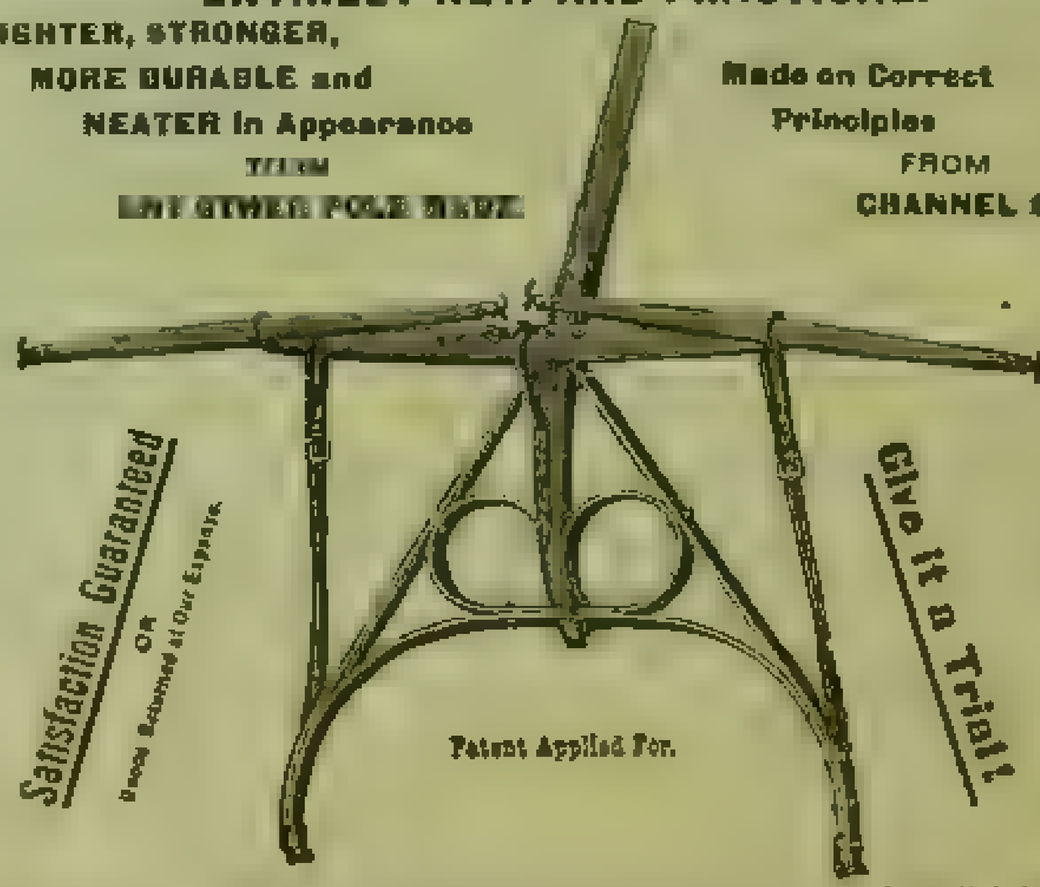
204 35th ST., CHICAGO.

THE ACME STEEL POLE

ENTIRELY NEW AND PRACTICAL.

LIGHTER, STRONGER, MORE DURABLE and NEATER in Appearance THAN ANY OTHER POLE MADE.

Made on Correct Principles FROM CHANNEL STEEL.



Satisfaction Guaranteed OR Money Refunded at Our Expense.

Give it a Trial!

Patent Applied For.

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RACINE MALLEABLE & WROUGHT IRON CO., Racine, W

— FARM MACHINERY —

SPRING REMEDY

R For That "Tired Feeling."

3 or 4 Squirts at (frequent intervals) of Anderson's Vehicles into your Show-room will do more towards drowning it than 'Sassafras"

We Have Some Nice Things "Slickers" Easy to Buy—Easy to Sell Always Please.

You Make Money on 'Em Your Trade Like 'Em.

Further Directions Furnished Upon Application with Catalogue and Prices

ALL RAILROADS REACH U S.

THE ANDERSON MFG. CO., Detroit, Mich.

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Guaranteed for Accuracy, Durability, Strength, and Value.

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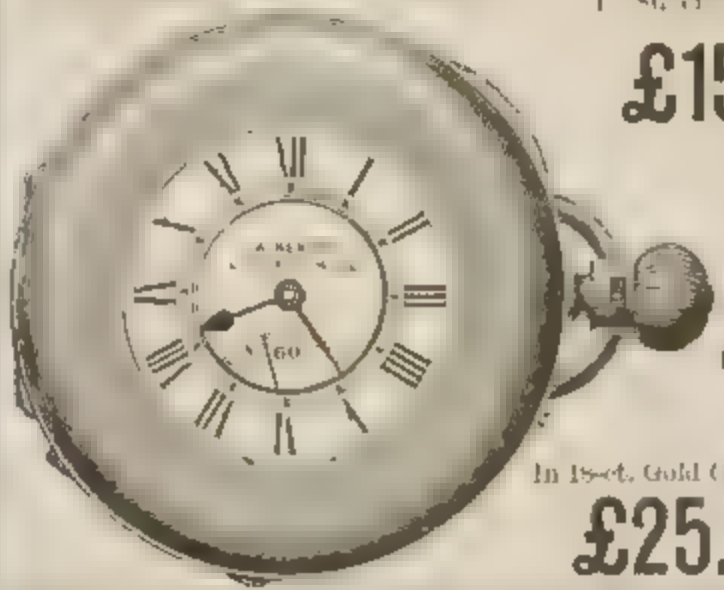

£15.

LIST POST FREE

In 18-ct. Gold Cases

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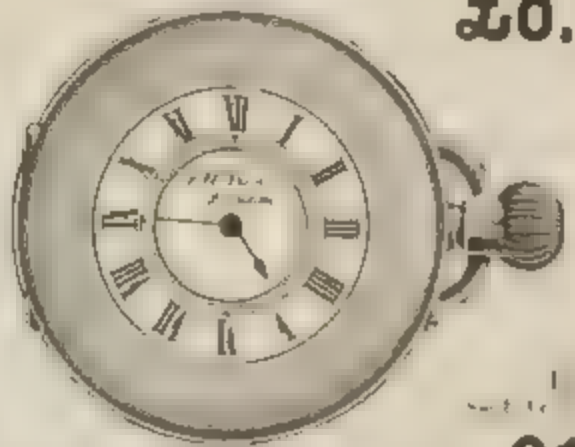

£8.8s.

Selections sent on approval.

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NEW DEPARTMENT FOR

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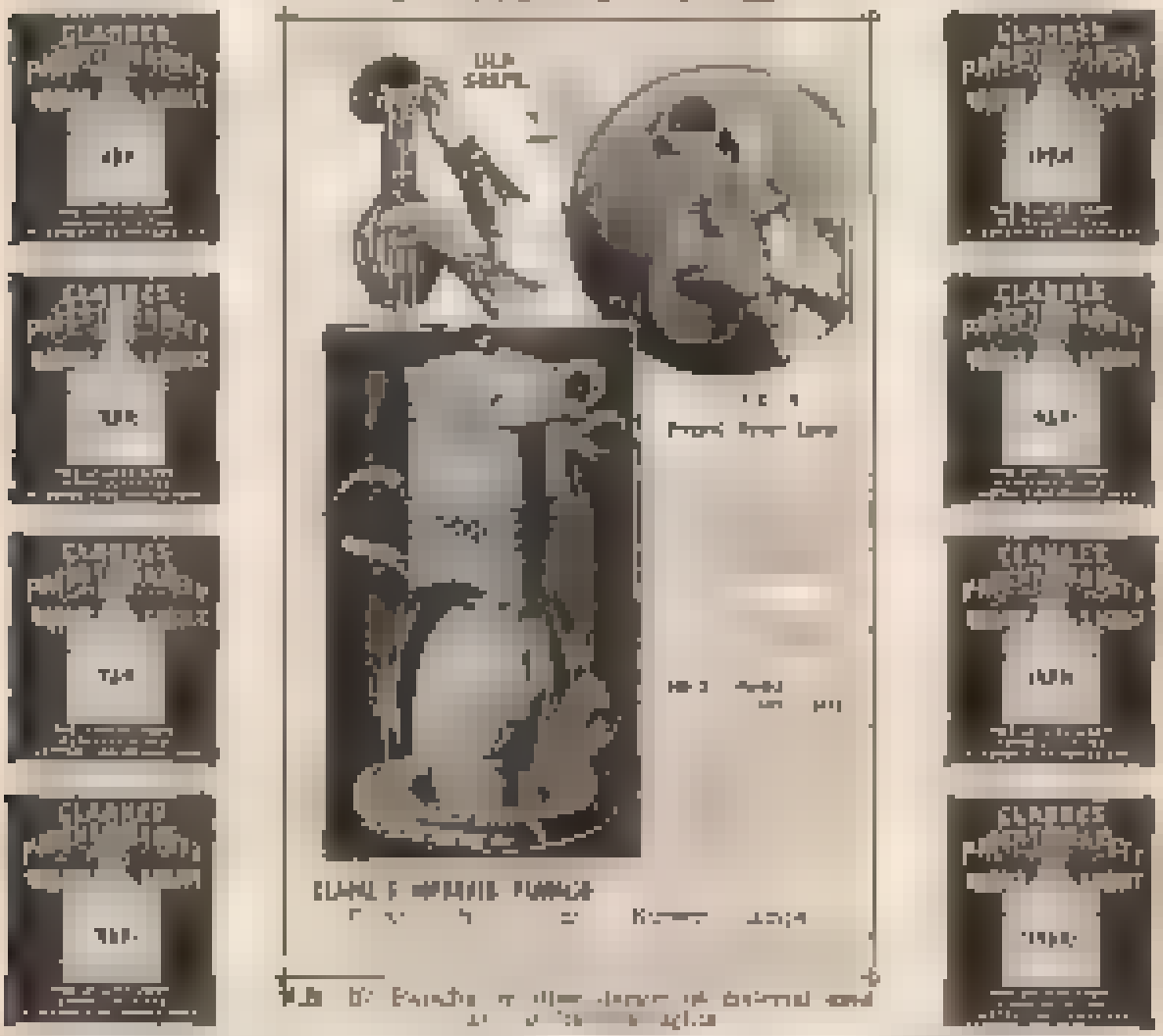
PETER ROBINSON

OXFORD ST

THE "BURGLAR'S HORROR"



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ED. PINAUD'S Celebrated Perfumes
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Raised entirely on Mellin's Food, she is now a hearty, robust and healthy child

Write to us and we will send you a sample bottle free of charge
Our book of instructions to mothers mailed on request

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DOLIBER-GOODALE CO., BOSTON, MASS.

[illegible] Minnesota, Purdue, Wisconsin and Illinois [illegible] Rules 1, 4 and 12 of Michigan, Chicago and Northwestern. Rules 1 and 12 relate to the *home rules* of an athlete, and Rule 4 to his antecedents *from the amateur view-point.*

[illegible] in any inter-collegiate contest [illegible] athletic team. This rule shall in operation as of December 1, 1908. No person who receives any compensation from [illegible] for services rendered in any of [illegible] athletic [illegible] teams. This rule shall become effective [illegible]

Rule 12. No student in all [illegible] after any year who has not been a resident at least [illegible] preceding year at [illegible]

This Rule 12 was framed in its [illegible] Wisconsin, which formulated and adopted the following

No student who has been a member of a college team [illegible] athletic team [illegible] two seasons [illegible] shall be eligible to [illegible] year.

The complete Chicago conference code was published and action of all the universities fully discussed, in the [illegible] May 23 of this year

The [illegible] faculties of Wisconsin [illegible] have [illegible] Rules 1 and 12 [illegible] athletics, [illegible] Rule 4 [illegible] general [illegible] athletes who fix [illegible] the accepted standard of purity [illegible] foisted upon the public as genuinely amateur. President Adams and the Board of Regents of Wisconsin have proclaimed a platform which entails the dishonor of their university. They have given irrefutable evidence that it is the winning of the game and not the spirit of the contest or the status of the player, which concerns them most. They have declared for victory at any cost, even at the cost of [illegible] and the respect of the community. After [illegible] precautions of rigid [illegible] last March, President Adams's recent departure from the path he proposed to travel even though his journey be by devious solitude is one he views as the supreme [illegible] It is born of a school [illegible] penetrating. It [illegible] many [illegible] the need of a dominant athletic power [illegible] ally with the purification of college sport. In this case Wisconsin stands disgraced before [illegible] of age worth.

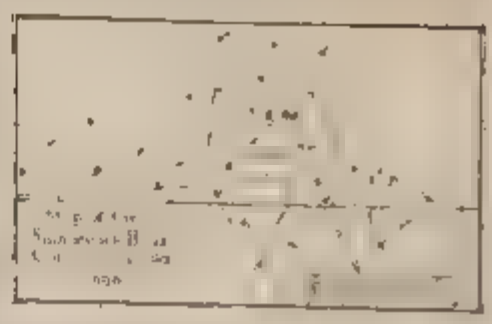
Wisconsin's [illegible] of its rules bears with [illegible] indignity on the effort making throughout this [illegible] for the [illegible] of wholesome sport, that it is [illegible] and [illegible]

When [illegible] opened at Wisconsin it was [illegible] of several important positions to fill on the [illegible] Coincidently four or five players of [illegible] prime, at other colleges possessed themselves [illegible] Immediately discussion began as to [illegible] of the rule requiring six months' residence [illegible] had existed on other college campuses. Meanwhile practice [illegible] under the rules adopted last March. Wisconsin was practising with the football.

At the [illegible] meeting following the opening of college the question of permitting those men to pay came up for decision

The [illegible] [illegible] [illegible]

AMATEUR SPORT



WHEN STRIVING TO

KEEP THE WOLF FROM THE DOOR

REMEMBER THAT IT IS NOT ALWAYS

the cheapest that is the most economic; the vast superiority of

HOVIS

over any other bread, either brown or white, both in its bone and muscle making substances, secures for it the coveted position of the

"CHEAPEST & BEST."

Highest Award at the Food and Cookery Exhibition, London, May 1895

IMITATION IS THE SINCEREST FLATTERY.

The Public are Cautioned against accepting from bakers [illegible] HOVIS [illegible] without the [illegible]

[illegible]

S. FITTON & SON, Millers, Macclesfield.

6d. and 1s. Sample on receipt of Stamps.

Look
Around

Beware

Williams' Pearline

A Mellin's Food Boy

...y other Food failed to agree with Scott—he ... we used MELLIN'S FOOD and it agreed with ... from the first. I think it is the best of ... children."

Instructions to mothers mailed on request

...ODALE CO., BOSTON, MASS.

THE PICNIC TEA

AIR – 'MY LOVE SHES BUT A LASSIE YET

Drawings By Kate Greenaway

I

Oh Sally Simpson's pride is she
Of all my Simpsons not excepted
I'll give my word
You never heard
Of such a jinking jollity.

II

Oh, Sally is a winsome girl
Of all our playmates shes the pearl
Her foot is light,
Her eyes are bright,
Her hair for very joy doth curl

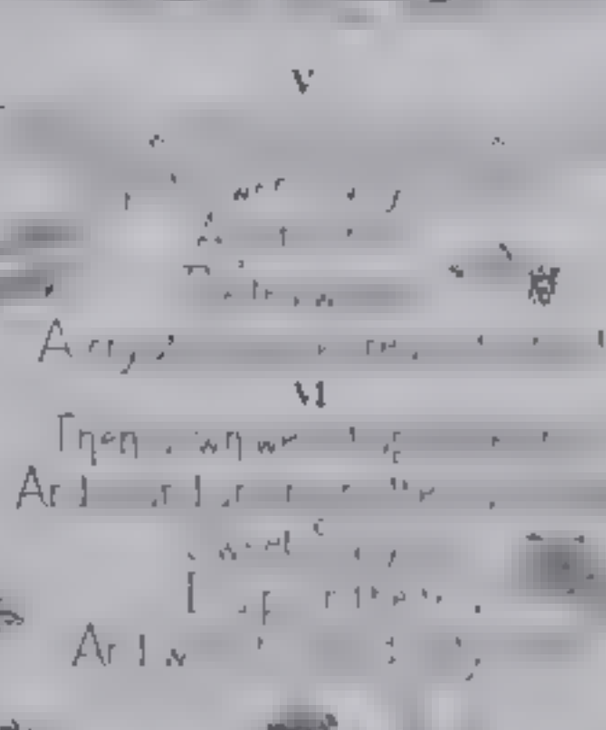
III

She bade us come at four o'clock,
But oh, we all were there by three
For there was none
Would lose e'en one
Half-minute of the revelry

IV

Each brought her basket in her hand
And wow! but some of them were grand!
With damson cakes
And raspberry tarts
And plums as thick as they could stand

V



VI

Then away we went
Across the [illegible]
[illegible]
Each [illegible]
Across the [illegible]

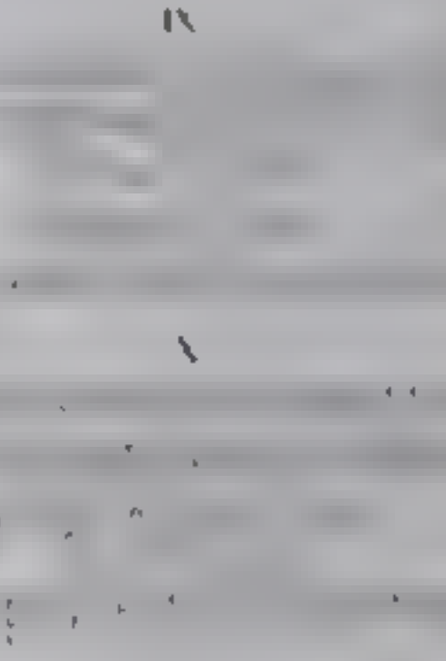
VII

We picked wreaths of [illegible]
Across the [illegible]
Each [illegible]
Her sweetheart
Nor dropped a curtsey [illegible]

VIII

But Sally was the prettiest [illegible]
Some said she was [illegible]
So I [illegible]
And merrily
The [illegible]

IX



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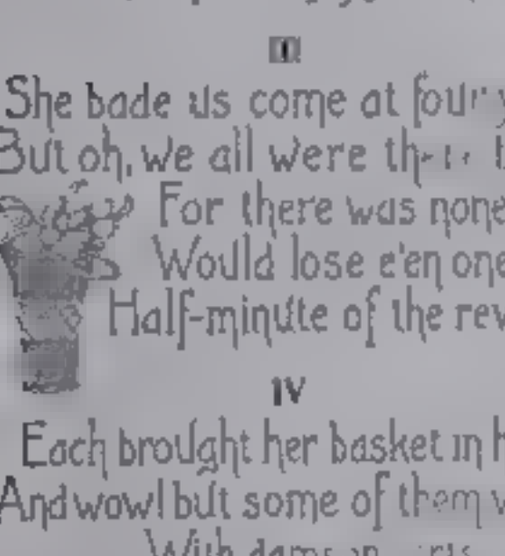
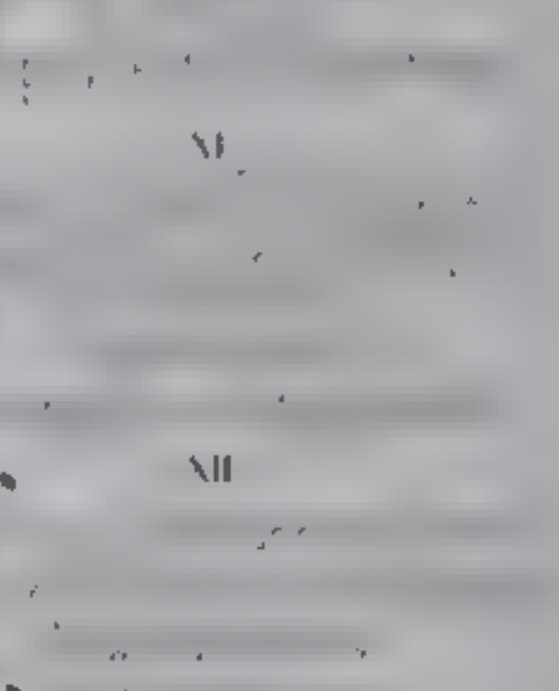


XI



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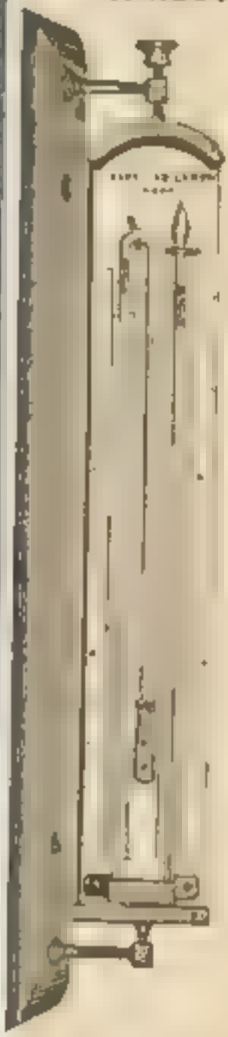

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Enabling the observer to read from inside the House the Temperature outside.

Price 21s., 25s., and 35s.

Thermometers for Sitting and Bed-Rooms, 1s 6d each
Registering Maximum Thermometers, 3s 6d each

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Philosophical Instrument Makers to Her Majesty the Queen and British and Foreign Governments.

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THE LADIES' HOME JOURNAL

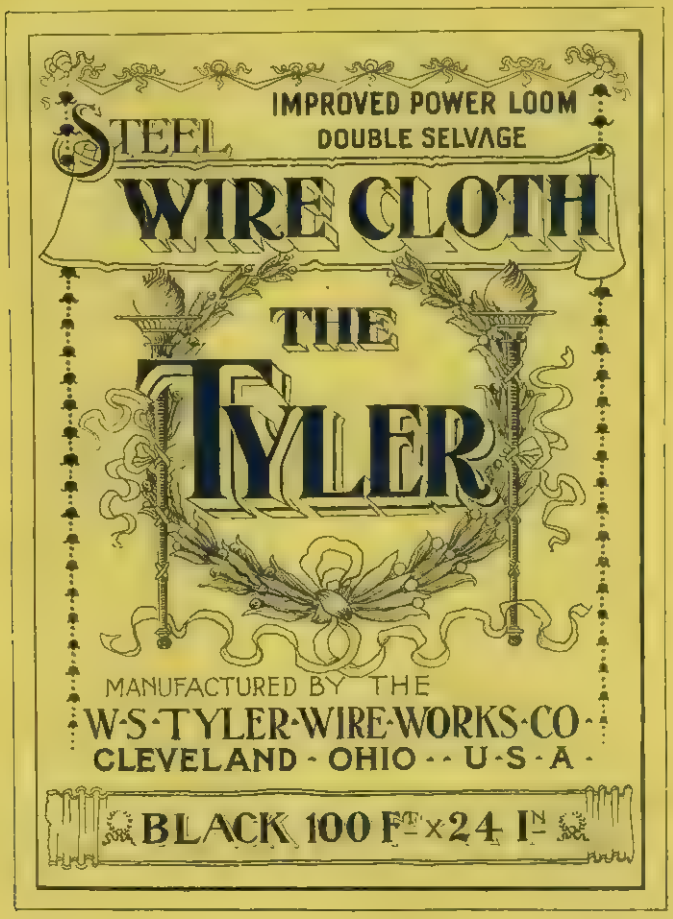
MARCH
1896

THE CURTIS PUBLISHING COMPANY, PHILADELPHIA

THE ART OF BREWING WAS DEVELOPED BY THE GERMANS
PABST
MILWAUKEE
SHAKESPEARE DIED
of Fever and Ague
PABST MALT EXTRACT
THE BEST TONIC
WHEN ANY BEER IS KNOWN AS PABST HAS MADE IT SO

HARDWARE "THE TYLER" DEALER

WE make all kinds of Wire Cloth and Netting for every purpose



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(SEE OTHER SIDE)

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When Buying Poultry Netting

BE SURE TO SPECIFY FOR

"The Tyler Netting"

It is made of No. 19 Wire, and heavily coated with pure spelter after being twisted. The joints are thoroughly soldered, and the entire Netting is Rust Proof.

"The Tyler" (Trade Mark)

Appears on all our goods. None genuine without it. (See other side.)

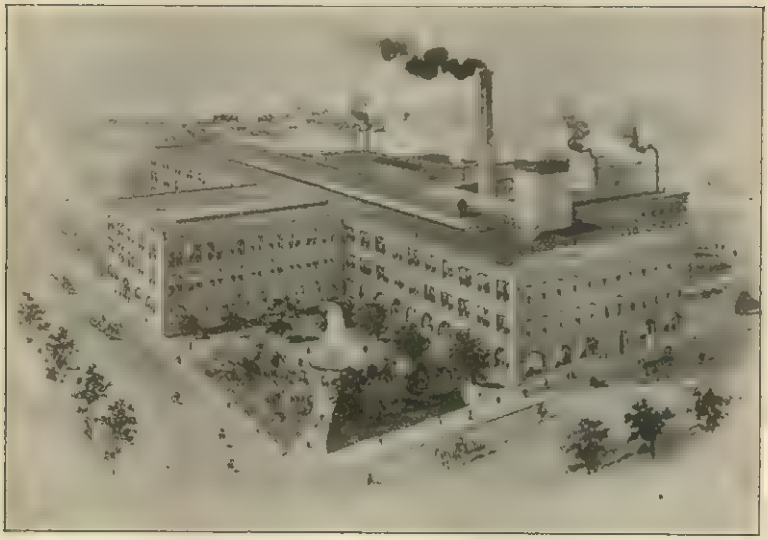
MANUFACTURED BY

THE W. S. TYLER WIRE WORKS CO.

CLEVELAND, OHIO

(162b)

BUFFALO CYCLE CO.



Factory of the Buffalo Cycle Co.

If any evidence is needed of the rapidly growing importance of Buffalo as a manufacturing centre, it is supplied by the new factory of the Buffalo Cycle Co., of which Messrs. Atherton & Funnell are proprietors.

This company a short time since purchased the immense building on Massachusetts Avenue, heretofore known as the Queen City Planing Mill, and have altered and adapted it to the purpose of manufacturing bicycles on a scale hitherto unknown in the State.

A few figures may perhaps convey some idea of the dimensions of this latest addition to Buffalo's manufacturing enterprises.

The property covers a superficial area of over one hundred thousand feet, with entrances on Massachusetts Avenue and Lawrence Place. The floor space of the factory proper, *i. e.*, the machine shops, pattern and assembling rooms, etc., aggregate upward of fifty-three thousand feet.

The whole of this vast space is covered with the latest automatic machinery of the most complete description, the magnitude of which is best indicated by the statement that the belting in connection therewith measures over one mile in length. The motive power of this mass of machinery is supplied by two Tifft boilers of one hundred and fifty horse power, and an engine of such proportions that it seems to be powerful enough to perform any task, no matter how exacting.

The polishing, nickel-plating, and buffing rooms are perhaps the most complete which have ever been arranged. The work of the polisher and buffer has always been looked upon as extremely injurious, from the fact that the powdered emery and fine particles of metal which are given off, float in the air and are inhaled by the operators, to the great detriment of their health.

Various schemes have been devised to obviate this danger, with more or less success. The company have recognized the need of doing something more than has hitherto been done, with a view not only to minimizing, but entirely removing injurious features of this branch of the business. By an elaborate system of blowers, fans and other appliances, they have so far succeeded as to render the operation not only harmless, but as pleasant as any other part of the work.

"Envoy." 22, 24 and 26 inch Frames, 28-inch Wheels.

The business offices of the company have a floor space of over one thousand five hundred feet, and are divided into departments under competent heads. The offices are finely fitted, and well adapted and equipped for handling the enormous business which is being conducted.

The draughting room covers a space of four hundred and forty-two superficial feet, and is replete with the newest appliances known to the draughtsman's art.

The whole of this enormous factory will be used for the production of the company's celebrated wheels, the Envoy and Fleetwing, which we illustrate.

The construction of these wheels for 1896 will consist of large tubing, barrel hubs, reversible handle-bar, narrow tread, etc., and they will be absolutely high-grade and up-to-date in every particular.

Envoy, or man's wheel, will be made in three heights of frame—twenty-two inches, twenty-four inches and twenty-six inches, all fitted with twenty-eight inch wheels, and listing at seventy-five dollars.

Fleetwing, or lady's wheel, will be made in two heights of frame—nineteen inches and twenty-one inches, the former fitted with twenty-six inch wheels and listing at sixty-five dollars; the latter fitted with twenty-eight inch wheels, and listing at seventy-five dollars.

"Fleetwing." Ladies' Wheel, 19 and 21 inch Frames, 26 and 28 inch Wheels.

C. T. HAM MANUFACTURING CO.

The C. T. Ham Manufacturing Co., Rochester, N. Y., was organized in January, 1886, and are now the leading manufacturers of Lamps and Lanterns.

Mr. C. T. Ham, the president of the company, has been connected with the lantern business since 1871, and is one of the pioneer manufacturers of the Tubular Lantern.

In organizing the company he associated with him his son, Mr. George W. Ham, who is secretary and treasurer of the company, and Messrs. John W. Orphy and Charles Bergener as superintendents.

These men have been in this line of work for many years, and are thoroughly versed in the different branches of the lantern business.

In addition to their large domestic trade, they are shipping their goods to every part of the world, and have a large and rapidly increasing trade with South America and like points.

Their Tubular Lanterns are all manufactured under their own patents, and are entirely distinct in design and operation.

Their leading lanterns during the past year have been their Side Spring Safety, Side Spring Improved, Clipper, Leader, Handy and No. 15 Dash Board Lantern.

In lamps their No. 9 Globe Street Lamp has proved particularly salable, and practically without competition. Their No. 20 Tubular Search Light Lamp is proving a great favorite with the trade, and bids fair

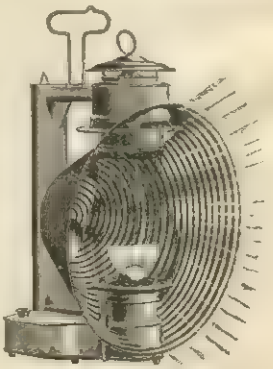
Works of C. T. Ham Manufacturing Co

The company erected the building they now occupy in 1890, since which time they have twice been obliged to enlarge their plant, and, owing to the large increase in their trade, still further room will be necessary in the near future.

We present an engraving of their works, which have a frontage of 200 feet and a depth of 60 feet, five stories in height.

The national reputation the product of this company has earned in the ten years of its existence, speaks volumes for the man who has stood at its head, and proves him to be a man of no ordinary attainments.

The company have the reputation of turning out the best made and finest finished goods, in their line, on the market, and the name "Ham" is known in connection with Lantern in every city, town and hamlet in America.



No. 20. Tubular "Search Light."

to become fully as popular as their No. 9 Street Lamp.

Their Gem Driving Lamps, in brass, Japan and nickel-plate are selling in such quantities as to prove that they meet a popular want in this line of lamps. The company are sole owners of the patents, and manufacturers of the celebrated Bull's-Eye Globes, which have become a distinct feature with the trade.

Besides the lines enumerated they make a

Bull's-Eye Globe.

No. O. "Clipper Lift."

full line of everything in the way of Tubular and Railroad Lamps and Lanterns; including Head Lights for cable and motor cars, and for traction engines. They also manufacture and make a specialty of Conductors' Lanterns, furnishing these in brass, nickel-plate, silver-plate, and gold-plate.

A number of the latter have been furnished to some of the leading fairs in the country and have been adjudged the handsomest goods in this line.

With Bull's Eye Globe.

With Bull's-Eye Globe.

Many of these have been got up with handsomely engraved globes, with plush lined morocco cases, and resembling jewelry in their careful construction and perfect finish.

Still another distinct line of goods of their manufacture is a very fine and complete line of Lanterns for fire departments, and in fact, wherever there is need for lanterns and lamps, the

No. 9. Globe Street Lamp.

C. T. Ham Manufacturing Co. have anticipated the want, and are prepared to supply promptly and satisfactorily any demand for these goods.

Their line of manufacture can perhaps be best understood by reference to the index of their catalogue, in which their product is partially classified as follows:

Brackets—for Street Lamps.

Burners—Tubular, for Kerosene and for hard Oil.

Globes—for Conductors, Railroad, No. 39, Bull's Eye, Lake and River, No. 7, Tubular, No. 00, "Gem," No. 0 Bull's Eye and No. 1 Lantern.

Globes for Street and Hanging Lamps.

Their line of Lamps includes the following:

Cab,
Caboose Signal,
Dash,
Gauge,
Head lights, Loco.,
Hanging, Globe,
Inspectors',
Motor, Street Car,
Pole Target,
Rear Signal,
Side Reflector,
Square R. R. Signal,
Square Station,
Square Tubular Station,
Square Bridge Signal,
Square Government Guarded,
Street, Globe,
Street, Square,
Switch Target,
Tail, R. R.,
Triangular Tubular Station,
Traction Engine Head-Light,
Utility, R. R.

In their line of lanterns are the following styles and kinds:

Brass Plated, Tubular,
Brass, Solid, Tubular,
Copper Plated, Tubular,
Conductors', Brass and Nickel Plate,
Commercial, Lard Oil,
Driving, "Gem," Brass and Nickel Plate,
Fireman's, Brass and Nickel Plate,
"Gem," Brass and Nickel Plate,
Hood Reflector,
Lake and River, No. 7,
Nickel Plated, Tubulars,
Railroad, Nos. 39 and 47,
Tin Tubular, No. 0,
Tin Tubular, No. 2,
U. S. L. H. E., Tubular.

Besides these goods they furnish turned wood Posts for Street Lamps. A copy of their catalogue, in which these various lines are fully described and illustrated, may be obtained by the trade upon request.

The Keating Factory.

Perhaps one of the most taking phrases used for advertising the excellent qualities of an excellent bicycle is the Keating Wheel Co's. motto, "365 days ahead of them all."

There is something original about the Keating and about its makers. While nearly all machines follow a set pattern, the Keating has an original patented design which not only has enabled its makers to place it in the front rank of high-grade wheels, but has also given them the right to claim that they are, in fact as well as in words, "365 days ahead of them all."

While manufacturers generally have decided to increase weights for this year, the Keating Co. are under no necessity to add an ounce to their machine, which is now and has been ever since the Keating Co. was formed, the lightest guaranteed road wheel in the world.

The great strength of frame has been obtained by curving the center frame tube forward toward the crank bracket, relieving the side strain. This, with the method of reinforcing and bracing, has enabled the Keating Co. to furnish a full road machine weighing but 19 lbs.

Many inexperienced purchasers have obtained heavy bicycles with the idea that weight gives strength. A more mistaken idea could hardly be conceived. It is quality of stock used, proper distribution of strain, and good workmanship that enables the man of science to build a 19-pound bicycle that is "365 days ahead of them all."

Speaking of a man of science, we want to present to our readers a picture of the

Robert M. Keating.

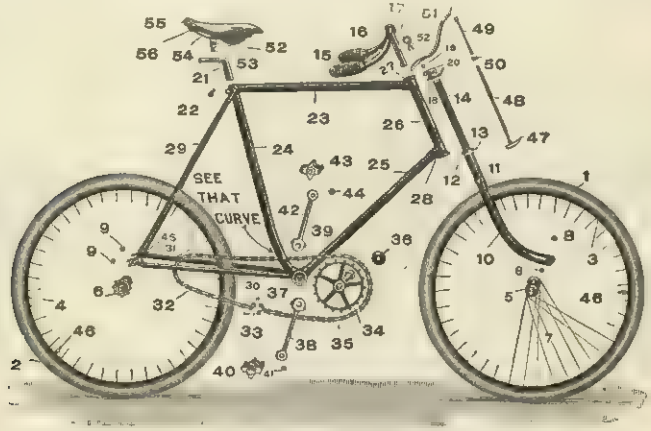
features of the originator of light bicycles, Mr. Robert M. Keating.

When but a boy he built light bicycles that were the wonder of older manufacturers. It was said that it was impossible for such light models to wear more than a few weeks. Broken frames and collapsed wheels were prophesied, and a thousand and one direful predictions were heard upon all sides. But the prophets had spoken from their standpoint; from their knowledge. They did not know of the many scientific points that had presented themselves to the busy brain of Robert M. Keating. A man who has always believed that perfection has never been reached in any line of work, he has kept his busy mental power and his nervous physical force at work on the scientific points which are involved in light bicycle building. The Keating wheel is the result of his work, and he has just cause to be pleased with the favor shown his pet mechanical triumph.

The Keating Wheel Co., with factory at Holyoke, Mass., is one of the best-equipped bicycle concerns in the world. Everything is up to date; in fact, ahead of times in many ways. The great lines of automatic machinery have been so much improved by the inventive genius of Mr. Keating that manufacturers from all over Europe and America have endeavored to obtain the Keating machinery designs. The greatest factory in France obtained its machinery designs from the Keating Company.

Novel ideas as well as novel machines have emanated from the Keating factory. The dissected Keating which we illustrate was one of the most taking and interesting advertising devices that could be imagined. All parts are shown and numbered.

The '96 model Keating has so many excellent features that one is surprised at its simplicity and the ingenious way in which results are brought about. The model is made in three heights of frame to accommodate all, 22½ inches, 24½ inches and 26 inches. The head tube is of such a length in each model that the top frame rod is perfectly horizontal. One and one-eighth inches, ¾ inches, and ⅝ inch tubing is used for frame, and 1¼ inch for head of all three models. The center tube is curved forward at the crank bracket that the strain of pedaling may not be directly across the grain of the steel. By curving this tube a longer chain can be used, and, as is well known, ease of movement is the result. The hubs have a little ear on the flange through which the spoke is passed. As there is no bending of the spoke metal, the draw being direct, there is no breakage of spokes. Hubs and crank bracket are of the large barrel pattern. The



The Dissected Keating.

crank shaft is divided in the middle, consequently no keys and nuts are needed with which to fasten cranks. Unlike most divided shafts, the Keating shaft is simplicity itself. The most inexperienced rider can remove and replace without trouble.

The handle-bar is adjustable at any angle and is operated by the simple turning of a bolt. A nut secures it in the proper place.

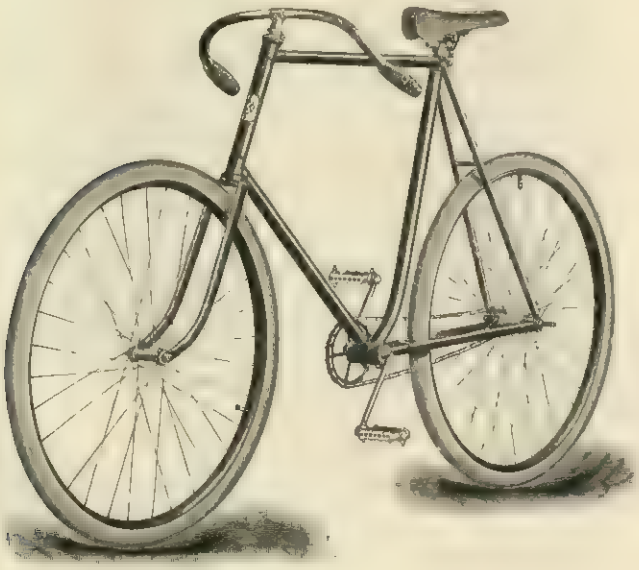
The pedals are beautiful samples of the pedal maker's art. They are convertible and easily changed to rubber or rat trap.

The Keating Co. cater to the best trade only. No cheap machines are manufactured, the first and foremost object being quality; the second, price. Wherever Keatings are shown there is a saying among dealers, "Show a Keating, sell a Keating."

This year Keatings will be sold in a wider territory than in years past. The company have not urged the sale in many countries as they have never been able to supply trade in full near home, but enlarged floor space, increased machinery, and the running of the factory all day and all night will enable them to fill orders promptly.

In addition to the three patterns of men's wheels, there will be a ladies' wheel, with double drop frame and with all the improvements found on the men's bicycle. Those who have seen the new model pronounce it a "Wheel of Beauty." Light weight is also a feature of this handsome machine.

Tandems for gentlemen, and combination tandems for ladies, will appear in the Keating line this year also. The great object of the Keating Wheel Co. is to furnish not only the strongest, lightest tandems, but to lead all competitors in design, finish, and ease of movement. In fact, live up to their motto: "365 days ahead of them all."



The Keating, 1896 Model.

PLUMBING AND HEATING

The Plumbing Inspectors' Association of Massachusetts held a convention at Taunton Dec. 4, with a good attendance. President Connealy, of Watertown, Mass., presided. The leading paper of the convention was by Chief Inspector Tower, of Springfield, upon the subject of "Trap Siphonage and Air Vents." He thought the trap was the key to plumbing, for no matter how perfectly the system of drainage may be constructed, a defective trap will render it useless from a sanitary point of view. The enemies of the trap seal are filth, siphonage, evaporation and back pressure. These are overcome by the special air vent, and the only perfect one known at present is to admit air on the sewer side of the trap seal. The meeting adjourned, after an interesting and profitable session, to meet in Boston March 5, 1896.

* * *

The annual meeting of the Albany, N. Y., Master Plumbers' Association was held Dec. 3d, when the following officers were elected for 1896:

President, John H. Moran; vice-president, Allen Gilmour; secretary, John E. Dugan; financial secretary, Joseph F. Sheehan; treasurer, T. E. Kerwin.

* * *

The tenth quarterly convention of the Massachusetts Master Plumbers' Association was held at Fitchburg, Mass., Dec. 3. A number of members took part in the discussion of the existing plumbing law in their State. Complimentary remarks from various sections were made regarding the work of the plumbing inspectors. During the afternoon an executive session was held, during the course of which the following resolution was considered and passed by a standing vote:

Resolved, That we, the members of the Massachusetts State Association of Master Plumbers, hereby agree not to purchase material from any dealers that sell plumbing goods to others than members of the State association and those in affiliation thereof, on and after March 1, 1896.

After the transaction of business of minor importance, the convention adjourned to meet in Boston, the exact date of which will be decided by the Executive Committee.

Supply Association

The Central Supply Association held its quarterly meeting at the Grand Hotel, Cincinnati, O., Dec. 10 and 11. President John Walker, of Detroit, presided over an interesting and profitable convention. The president's report indicated that the association was steadily gaining in strength and influence. The question of charging for boxing and cartage was touched upon, and the fact elicited that the members of the organization had faithfully lived up to the rules of the association regarding this matter, of the several violations reported amicable adjustments had been secured in nearly every instance. No complaints had been received regarding consequential damages and prison-made goods, and but one complaint was entered as to selling irresponsible plumbers on owner's or architect's guarantee. The members were urged to promptly report infractions of any of the rules of the association in an effort to bring about a better condition of affairs with respect to their branch of business. Reports of other officers of the association showed material progress. The next meeting of the association will be held in Pittsburg, Pa., March 12, 1896.

* * *

The first annual meeting of the Eastern Supply Association was held in New York Dec. 10, President John Reid in the chair. A communication was received from the Earthenware Manufacturers Association, suggesting the appointment of a committee to meet, in conjunction with committees from the Central Supply Association, and the New England Plumbing Supply Association and the Earthenware Association for conference on certain matters of mutual interest. A committee on boxing and cartage was authorized to confer with the jobbers in various localities and report to the association. The following officers were elected for the ensuing year: President, B. Frank Hooper, New York; Vice-President, John B. Love, Philadelphia; Treasurer, W. C. Tragaeser, New York; Secretary, Edward W. Love, New York.

To the plumbers the modern home owes everything that goes to make health and comfort. The plumber of to-day is not the plumber of yesterday. Keeping pace with the great increase of knowledge, especially the knowledge of disease and its causes, and all that the science of hygiene has brought into modern life, the plumber takes his place as an important, if not the most important agent for the preservation of the health of our cities that this age knows.

* * *

The Pennsylvania Railroad Co. has a steam heating instruction train at its passenger station in Cincinnati. The train is making a trip over all the lines of the system for the purpose of instructing employees in the method of using and applying steam heating apparatus

* * *

A tubular boiler 1,800 years old has been discovered at Pompeii. It is made of sheet metal, probably copper, in the shape of a large amphora or two-handled jar, with a hollow space running half way up the center of the jar. In this space was placed a cylindrical firebox resting on five firebars, which are tubes three-quarters of an inch in diameter, connecting with the water space. The fuel seems to have been charcoal.

* * *

The Shawsheen Water-Closet

We present herewith an illustration of the Shawsheen water-closet, known as Combination No. 5, manufactured by the Dececo Co. 146 High St., Boston, Mass. It is a deep seal combination hopper and trap closet, made in compact form, and on such lines as to insure a satisfactory discharge with a moderate amount of water. The combination comprises an embossed Shawsheen Closet in ivory ware, brass floor flange, nickel-plated bolts and rubber gasket, finished hardwood, copper-lined tank, siphon, or slow-closing valve, with nickle-plated brass brackets, chain and hard-wood pull, finished hardwood seat and lid with adjustable brackets and nickel-plated adjustable flush-pipe. In our last issue we presented a view of the "Avon" water-closet accompanied, through an error, by a description of the Shawsheen Water-closet, Combination No. 12.

This company was inadvertently omitted from the list, printed in a former issue, of plumbing and heating supply houses.

Booth's Combination Bath and Heater

The Steel Bath Mfg. Co., of Detroit, Mich., have brought out another new bath tub, which seems to fill a gap not heretofore occupied.

The object of the device is to furnish a means of heating water in the bath tub itself when the ordinary means of range boilers, instantaneous heaters, etc., are not available, and is especially applicable to portable or perambulatory bath tubs.

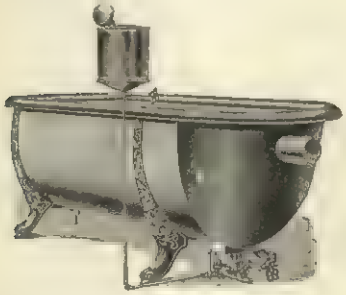


Fig. 1

The bath tub proper may be constructed of any kind of cast or sheet metal, and may be of any of the usual forms of construction. Preferably a bath tub made of sheet metal and having the usual slanting head is employed. Into this head and below the water line a number of copper tubes about 9 inches long are fastened, having their outer ends stopped and the inner ends opening into the bath tub. Over these tubes on the outside of the tub a cap or hood is placed, having an opening at the bottom 10 inches square and a 3-inch vent pipe at the top. Heat is applied at the bottom opening. Gasoline, gas, either illuminating or natural, any kind of burner, and even wood, anthracite coal or charcoal may be used.

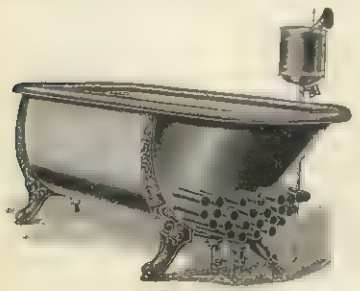


Fig. 2.

The illustrations show a bath tub with heater using gasoline. Three or four ordinary gasoline burners may be used to an advantage. Fig. 1 shows the bath tub, with heater ready for use. Fig. 2 is the same with hood removed, and Fig. 3 is a view of the inside of the bath looking from the foot end, and showing the head of bath tub with heating tubes fastened into it.

Fig. 3.

The operation is simple. The tub is first filled with cold water to a point just above the highest tube. The fire—gasoline or gas, as the case may be—is then lighted, when circulation at once begins. The water heated in the tubes expands, and is thus sent out with force sufficient to carry it to the foot-end of the tub where the water is soon found to be as warm, and even warmer, than it is at the front end. Colder water from the bottom then enters the tube, and is heated and thrown out, and so on until in from 20 minutes to half an hour, according to the intensity of the heat employed the water will be found to be of the temperature required for a hot bath, say 90 to 100 degrees Fahr.

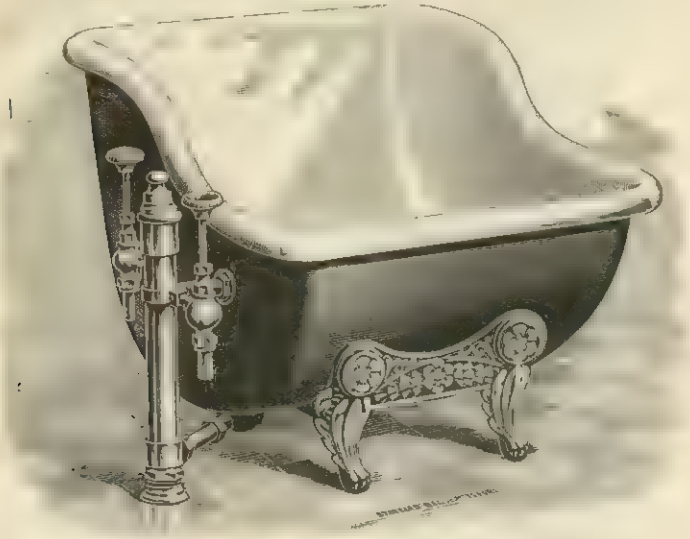
Patents have been applied for, and bath tubs, with this new heater attachment, are now ready

* * *

E. S. Wheeler & Co., of New Haven, Conn., jobbers in plumbing supplies, have opened a New York office at 101 Beekman St.

Porcelain Enameled Sitz Bath

Hoy & Co., Albany, N. Y., among their line of sanitary specialties, manufacture the Porcelain Enameled Sitz Bath, shown herewith. It is provided with bell supply fittings, handco waste and overflow. It is 27 inches long, 26 inches wide, 15 inches high at the front, and 21 inches high at the back. It is furnished with all polished brass fittings, nickle plated brass fittings, and decorated outside in ivory white and gold bands, as desired.



Water-Closet Seat and Cover

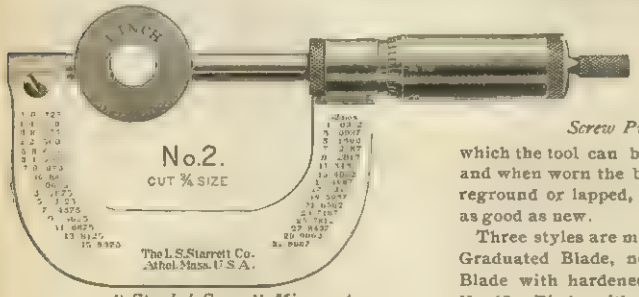
Mr. F. G. High, 628 Market St., San Francisco, Cal., recently patented an improvement on water-closet seats, an illustration of which we present herewith. The improvement consists of two seats having openings of different diameters. The intermediate seat is made small for the use of children, and when not in use it is thrown back into a groove in the cover. This device can be attached to any of the usual forms of water-closet covers.

* * *

The illustrated catalogue and price list No. 19 of Covert's neck-yoke centers, trimmed neck-yokes, harness snaps, rope and web goods, and specialties in saddlery, coach, and general hardware, manufactured by Covert's Saddlery Works, Farmer, N. Y., is now being sent to interested dealers. In addition to illustrations and descriptions of the goods above mentioned, a comprehensive index in the front of the catalogue and reference list at the end are included. Great care has been exercised in the preparation of this catalogue, and a copy will be sent to any of the trade making request for same.

Starrett's "Speeded Screw" Micrometer (of which we show a three-quarter size drawing) is an improved Micrometer, with a small knurled thumb-piece on the operating end of the spindle, by means of which its rotation is speeded (about three to one) by the action of the thumb and finger, between which it is made to rotate.

The size shown in the engraving will measure up to two inches, and has just been placed on the market.

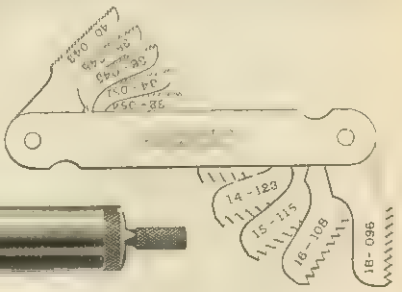


"Speeded Screw" Micrometer.

A further improvement in this Micrometer (saving the necessity of splitting the barrel to take up wear in the nut, with openings for dirt to get through, as in other makes) consists in a bushing running through full length of the barrel, and firmly secured therein, said bushing being chambered in middle, inside, and each end tapered outside both ends being split in three sections nearly half the length. One end is threaded inside for the screw, the other smooth to fit spindle. A knurled nut, threaded on the outside, is screwed to each end of the barrel, telescoping the ends of bushing, one to take up wear and cause a close fit between the screw and nut, the other to contract the bushing to a close fit on a spindle, or by a slight turn of the nut lock firm, thus making a solid gauge when desired, which for reliability has no equal.

We illustrate one of their six different styles of Screw Pitch Gauges, a line which are celebrated for their adaptability for use inside a nut as well as on the outside of a screw or bolt.

The line of Reliable Try Squares, made by The L. S. Starrett Co., are handsome in design, light and convenient. These goods, while comparatively new, have become universally popular. The blade is not riveted or soldered to the stock, but is firmly held by their patent bolt and nut, by means of



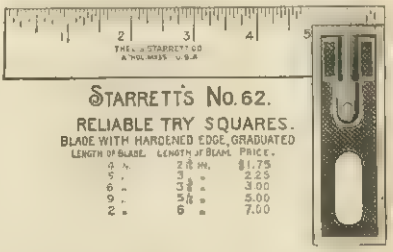
Screw Pitch Gauge.

which the tool can be readily taken apart, and when worn the blade and stock can be reground or lapped, and put together again as good as new.

Three styles are made, as follows: No. 60. Graduated Blade, not hardened. No. 61. Blade with hardened edge, not graduated No. 62. Blade with hardened edge and adjusted.

Five sizes of each style are made as enumerated in the engraving shown hereherewith.

In the line of Surface Gauges they make four different patterns. The one we illus-


STARRETT'S No. 62.
RELIABLE TRY SQUARES.
BLADE WITH HARDENED EDGE, GRADUATED
LENGTH OF BLADE. LENGTH OF STAM. PRICE.
4 in. 2⅜ in. $1.75
5 " 3 " 2.25
6 " 3½ " 3.00
9 " 5⅛ " 5.00
12 " 6 " 7.00

trate is their No. 56, Tool Makers' Universal Surface Gauge, and is particularly adapted for fine workmanship.

The base is steel, nicely finished and case hardened, with depressions milled in the sides for the thumb and finger to grasp. The top side is slotted, and the rocking bracket is pivoted in the same. There is a stiff spring under one end of the bracket and a knurled adjusting screw in the other; the spindle jointed to this may be set and

the product, and are fitted up with all the up-to-date appliances of service in the modern business office.

We have selected a few of the fine tools made by The L. S. Starrett Co., from their

Cutters.

catalogue for illustration, as being of particular interest to our readers.

One particular department, under the personal supervision of Mr. F. J. Gay, a member of the firm, is the Cutter Department. Mr. Gay has devoted his life to this one branch of the business, and this experience of years, combined with facilities at his disposal –experienced assistants, and a large and well-lighted factory, equipped with the highest class of standard and special machinery and tools—guarantees to their customers first-class Cutters.

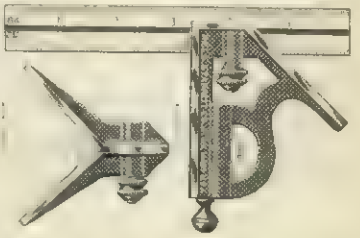
A particularly salable tool is their Combination Square. This is the first tool made by Mr. Starrett when he started in business for himself in 1880, in a corner of a shop rented for the purpose. The popularity of this Square has increased every year, and it is now to be found in the stock of every dealer in tools, and in the chests of intelligent mechanics all over the world.

The line of Speed Indicators made by The L. S. Starrett Co., are of a character especially favorably regarded by reason of their accuracy and easy reading.

We illustrate their No. 107, which was devised to automatically register hundreds as well as units and tens, and thus relieve the mind from keeping tally; also to furnish a better registering indicator at a more reasonable cost than heretofore.

The instrument will register 5,000 revolutions.

The large dial is graduated into 100 lines, each one representing a revolution of the spindle. The small dial has fifty lines cut upon its face, each representing 100 revolutions of the spindle (or one complete turn of the large dial). A spring finger trip attached to the case engages with one of the lines in the small dial, and holds it from revolving until the large dial makes one complete turn, when the trip pin passing under the spring trip lifts it, and the dial is frictionally carried along by the large plate one line, thus showing that 100 revolutions of the spindle

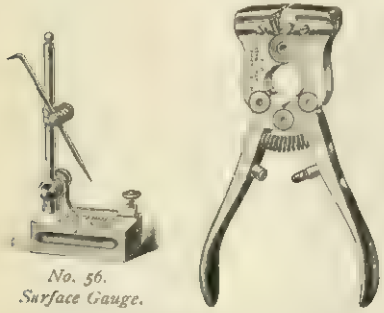


Combination Square.

have been made. The instrument has a hard rubber handle, making a safe insulator when used on electrical machinery. It also has a rubber-pointed tip, which makes a very smooth and strong frictional contact with the shaft.

Speed Indicator No. 107.

rigidly held in position from vertical to horizontal, and the scriber placed in position to be used below its base for Depth Gauge, or (with bent end down) a Scribing Gauge. It weighs but 11 ounces and is 5 inches high, and, folding the spindle (which is 4 inches long) horizontally over the base, it may be packed in 1⅜ x 1½ x 4 inches space in the tool chest.



No. 56.
Surface Gauge.

Starrett's Adjustable Jaw Cut-Nipper, which we illustrate, is considered the handsomest Nipper on the market.

This tool was designed to supply the demand for a better thing in its line than has been heretofore obtainable.

The jaws are detachable, so that they can be removed, ground and adjusted when they have become worn. Each jaw can be ground away to the extent of a quarter of an inch, remaining as good as new for practical use; and when used up, if ever, new jaws can be procured.

These jaws have a dovetailed slot in their under side to receive a spline which extends into a slot in the frame. A tapering screw through the frame and spline draws the jaw firmly down to a toothed seat in the frame, holding it securely.

Another improved feature in this Cut Nipper is a flat spring below the cutting edges, and over the joint, forming a yielding seat for the end of the wire to press against while being cut.

The head and handles are of drop forged steel, finely finished. They are made in two sizes, 5½ and 7 inches respectively.

In the line of Iron Machinist Levels they have recently gotten out a line of Adjustable Levels, one of which we illustrate.

Their No. 132 Levels with Double Plumbs are made in 6, 9, 12, 18 and 24 inch sizes.

Their No. 130 Bench Levels in 3½ inch size.

Their No. 135 Nickel Pocket Levels are made in 2½ and 3½ inch styles.

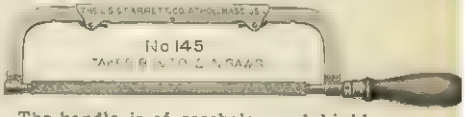
Adjustable Level.

In Hack Saw Frames The L. S. Starrett Co. have produced, in their No. 145, which we illustrate, a frame which is neither too heavy nor too light, and exceedingly handsome in appearance. The spring plunger overlaps the ends of the saw, automatically holding it to its home.

By slightly pushing it back the saw may be instantly removed, thus furnishing the most convenient way of attaching and detaching the saw ever devised.

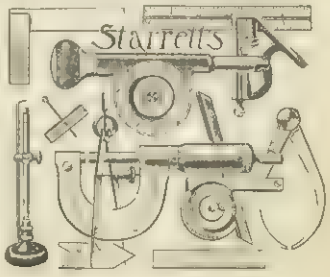
An improved nut within the handle (turning with it) gives the desired tension to the saw, and it may be quickly and conveniently set to any angle.

The Hack Saw Frame, illustrated, has an extension back to receive saws of various lengths.



The handle is of cocobola wood highly polished, and adds to the attractive appearance of the tool.

We regret that space at this time will not permit of further descriptions of their interesting line of Fine Mechanical Tools, but we beg to refer our readers to their catalogue No. 13, which contains descriptions and prices of their full line of tools. This catalogue is fully illustrated, and also contains some valuable tables of interest to the trade and to the mechanic. Some fifty thousand of these catalogues were sent out last year, and they will gladly send their latest book to any one who will send them a request for same.



THE L. S. STARRETT CO.

The L. S. Starrett Co., Athol, Mass , are known wherever fine mechanical tools are sold or used.

We have pleasure in presenting a view of their factory buildings herewith. The right-hand section of the building, shown in the illustration, is the factory used by Mr. Starrett from 1866 to 1894.

The two sections to the left were built in the summer and fall of 1893. The middle section is built on trusses, spanning the Millers River, the latter furnishing power for the factory machinery.

Since this engraving was made a water tower has been added to the left of the building for use in connection with the automatic sprinklers, with which the factory is equipped.

Nearly 50,000 square feet of floor space are provided by these buildings, which is hardly sufficient for their constantly expanding business.

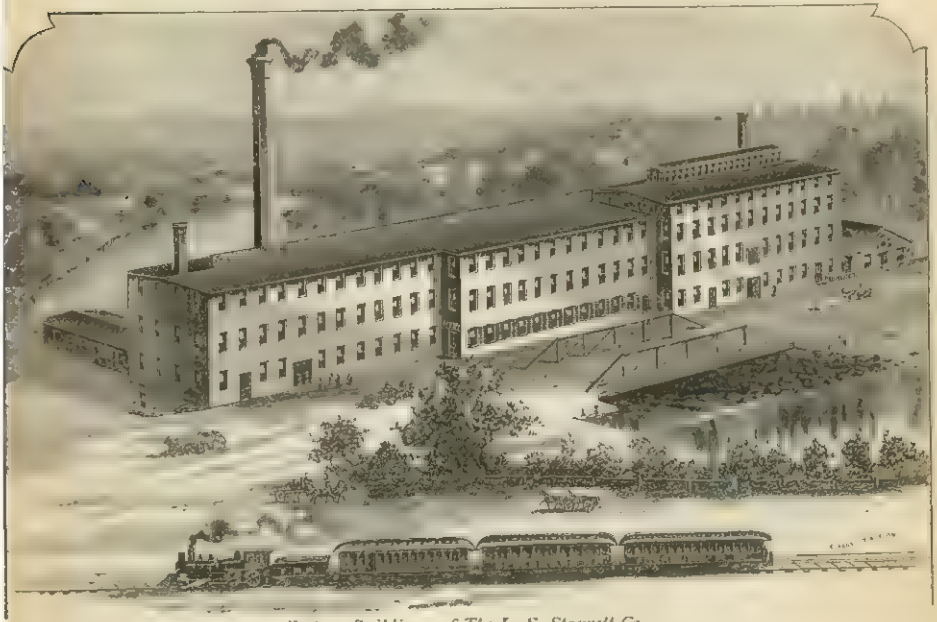
The entire plant is provided with light by a special electric plant, and all parts of the buildings are connected with the town fire alarm system.

Besides the power afforded by the Millers River, the factory is equipped with a 110 horse-power engine, ready for use whenever the water power is insufficient through drought, or from anchor ice.

The length of the building is 240 feet; width, 40 feet; height to top of chimney, 112 feet.

It is hardly necessary to add that the works are fitted up with improved machinery and modern equipments throughout, as the class of fine work produced is evidence of the expensive and intricate machinery required for its production.

The business offices are pleasantly arranged, with plenty of room for the systematical handling of the vast amount of detail connected with the production and sale of



Factory Buildings of The L. S. Starrett Co.

large demand for grindstones, it may be incidently stated that the Cleveland Stone Co. annually produce about 40,000 tons, comprising a large variety of grits adapted to various classes of grinding. A very important factor, both in the selection of the grit and the proper working of the grindstone, is the speed at which it is operated. One grindstone frequently works well at a high rate of speed, while another stone will reach its maximum work at a speed of several feet per minute slower. The average speed of the Ohio grandstones should be about 2,500 feet per minute, but in no instance should they be run at a speed exceeding 3,000 feet per minute, and even this rate is straining the limit of safety. The Huron stone will stand a higher average rate of speed, 4,000 feet per minute being the outside limit for safety. The speed of a grindstone is calculated by the number of feet per minute which the periphery travels. To ascertain the rate of speed multiply the diameter in inches by 3.1416 and divide by 12; then multiply by the number of revolutions, and the product is the number of feet per minute which the stone is traveling. It is essential, in order to have the grindstone perform satisfactory work, that it be kept entirely free from dirty water, grease and oil. There is no tool about a workshop that is more useful or necessary than the grindstone, and none which is more generally neglected.

The offices and yards of The Cleveland Stone Co., in New York City, were established in 1840, and are located at 283 and 285 Pearl St. At these yards is carried a large stock of all grades of grindstones, also mounted grindstones, family grindstones, sythe stones, etc. Especial attention is paid to the selection of shipments for export to the West Indies, Mexico, South America, Africa and other foreign ports.

* * *

In the interests of manufacturers, dealers and consumers, as against the illegal manufacture, sale and use of repairs for chilled plows, a notice has been sent by W. M. Brinkerhoff, attorney, Auburn, N. Y., to the agents of chilled plow manufacturers requesting them to sign an agreement by which they will agree not to sell counterfeit chilled plow repairs after Dec. 1, 1895, save what they have in stock, and hese to be disposed of prior to Oct. 1, 1896. The following manufacturers have signed an agreement similar to what is above outlined:

Bucher & Gibbs Plow Co., Canton, O.
Oliver Chilled Plow Works, South Bend, Ind.
South Bend Chilled Plow Co., South Bend., Ind.
Syracuse Chilled Plow Co., Syracuse, N. Y.
Gale Mfg. Co., Albion, Mich.
Wiard Plow Co., Batavia, N. Y.
T. M. Bissel Plow Co., Eaton Rapids, Mich.
Bean-Chamberlain Mfg. Co., Hudson, Mich.
Bryan Plow Co., Bryan, O.
Universal Plow Co., Wooster, O.
Princess Plow Co., Canton, O.
Castile Plow Co., Castile, N. Y.
W. Eddy Plow Co., Greenwich, N. Y.

This movement is designed to protect the manufacturer, dealer and consumer against the sale and use of counterfeit chilled plow reapers.

Sidney Shepard & Co.

Sidney Shepard & Co., of Buffalo, N. Y., and Chicago, make an announcement that will interest the trade not a little. Having tested the temper of the public in regard to aluminum cooking utensils, they are satisfied that this metal is an assured success, and they announce a large reduction in their list, a change in discount and a determination to push these goods to the front. The location of the company's factory, close to the new works of the Pittsburg Reduction Company, manufacturers of aluminum, make this offer to the trade possible. The silver finish on the aluminum goods will take them into markets where they have hitherto been unknown.

The company issue an eight-page pamphlet, entitled "Niagara Falls Did It," devoted to a reduced price list of aluminum ware, among which may be mentioned Preserving Kettles, Saucepans, Milk or Rice Boilers, Tea Steepers, Tea and Coffee Pots; Dish, Pudding, Milk, Tubed Cake and Jelly Cake Pans; Straight Pie Plates, Bread and Muffin Pans, Corn Cake and Perfection Cake Pans, Dripping Pans, Family Dippers, Soup Ladles, Wash Bowls, Tumblers, Servers, etc. A forty-two page pamphlet is also issued, devoted to illustrations and prices of Sheet-Iron, Tin, Wire, Rivets, Coal Hods, Roasting and Baking Pans, Stove Boards, Elbows, Mica, Oil Cans, Lanterns, Tea Kettles, Hollowware, Tinware, Ash Cans, Oil Tanks, etc.

The annual convention of the Michigan Association of Master Plumbers will be held in the Central Labor Union Hall, at Saginaw, January 16-17.

The first annual convention of the Wisconsin Master Plumbers Association will be held at Racine, January 9-10.

The Master Plumbers Association, of Cleveland, O., will hold their annual meeting January 14.

Making Small Grindstone Patterns.

HOW GRINDSTONES ARE MADE

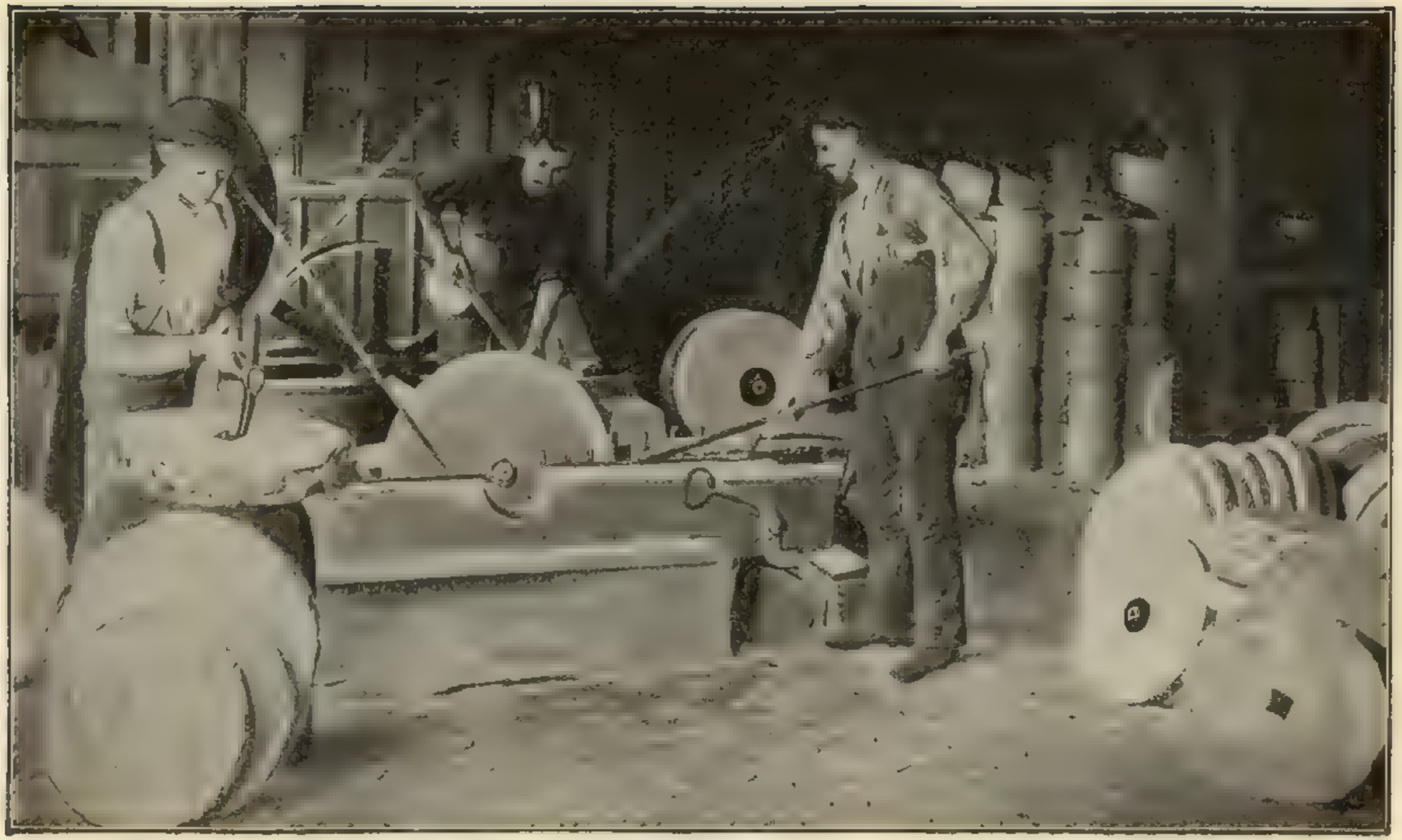
The quarrying and the manufacturing of grindstones is one of the most important industries connected with general manufac ture. Nearly all manufacturers use, and all hardware dealers sell grindstones, and the following description, which has been kindly furnished us by the Cleveland Stone Co., Cleveland, O., will give our readers a very clear idea of their method of manufacture. The first operation is, of course, in the quarry, where the blocks of stone are quarried almost, if not altogether, of even thickness and widths. These blocks are then split by the aid of wedges into thicknesses suitable for various sizes of grindstones. The next operation is marking upon the surface of the slab the desired circle of as large a size as the piece will admit. A rough slab of stone, with the circle outlined, is then placed inclined upon another stone and with an ordinary stone hammer is broken round or as nearly so as possible. The partly finished stones are then loaded on the cars and shipped to the grindstone factory. The grindstone patterns after arriving at the factory are centered, and the eye or square hole made in them by means of a pick. They are then placed upon a special lathe, the mandril of which is square, fitting the hole in the center of the stone. While being revolved they are turned into exact shape by means of a soft iron bar held against the face and edge. The bar which is used in this operation is 1½ inches wide and from ⅛ to ¼ of an inch in thickness, with the points slightly turned up in order to take a better hold upon the stone, two men usually working at each lathe. The sand and dust is carried off by means of a blower.

Berea rock, can, if desired, be split much thinner, and from much larger blocks. It is not unusual to split flagging from this rock 6 x 4 feet and 3 inches thick. The Berea rock splits so easily that in furnishing curbing the blocks are loaded upon the cars before being split, and are split up quite frequently while being switched out of the quarry.

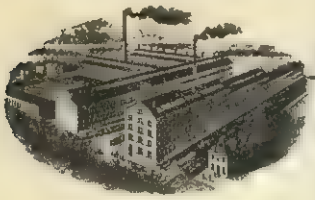
After the grindstones have been turned perfectly round and flat, an iron hub is passed through the center of the stone, and fastened on one side by a flange, and on the other by a flange nipple. Stones are then mounted upon frames or shipped without frames as desired. Most of the frames are so made as to be shipped, knocked down, to save freight charges.

Scythe stones are made from a little finer stone than are grindstones. The stones are first sawed into slabs by gang saws, the slabs being about 1 or 1¼ inches thick. These are then broken in widths 10 to 12 inches, according to the length the scythe stones are to be made when finished, and are broken into proper sizes by means of a drop knife, or in grindstone vernacular, a "guillotine." The rubbing bed on which the scythe stone is finished is usually made from basswood, and hollowed in the centre, sloping toward the inside. The face of the wood is driven full of scraps of iron, the wood working away faster than the iron; the latter with the aid of sand and water does the cutting. The rougher work is done on the outside of the wheel, and the finishing on the inside, where the speed is not so great. After the scythe stones have been examined they are finally labeled and packed in boxes, containing one-quarter of a gross, and are then ready for shipment. Besides the usual shape of grindstones which are known to the trade, they also manufacture special shapes and designs for performing special grinding. What are known as wood-pulp grindstones are produced from stone known as "Peninsula" grit, which has long had an excellent reputation. For the purpose of grinding wood pulp the grit is hard and coarse, the particles are well set and of rectangular form, presenting sharp-cutting points, giving the stone a constituency that enables it to wear well and produce a large quantity of pulp. Stone made for this purpose is hollowed out in the centre for nearly three-quarters of an inch in diameter.

Turned Well Covers are also made at the factory, where they are turned true in the lathe and the upper side convex, the highest point being in the centre, thereby leaving a chance for the waste water to run off, leaving the cover perfectly dry and clean. These are made either with square or round hole, as desired, and in any size from three to five inches in diameter. As illustrating the



Turning Small Grindstones.



Weed's Improved Increment Cut

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Maule's "Skeleton" Pipe Die

In Construction "Skeleton" In Efficiency "Giant" In Price "an Infant" In Square Inches of

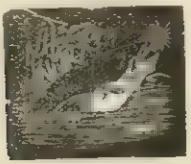
The Manufacturers' Warehouse & Showroom 45 S. Philadelphia, U.S.A.

temperature being registered on a thermometer attached to the inner wall of the oven. The thermometer is easily read through an open part in the oven fitted with mica. Either gas, gasoline or kerosene can

be used as fuel, as may be desired. When no particular style of burner is mentioned one fitted to burn kerosene is supplied. The heat furnished is uniform and is easily controlled by a screw adjuster. With this oven a successful baking can be done in an hour.

Luminous Fish Bait

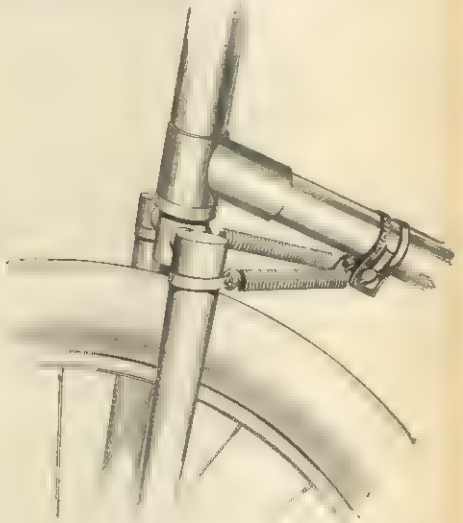
Mr. E. F. Pflueger, president of the Enterprise Mfg Co., Akron, O., has an enviable reputation for his numerous patented specialties, but none more than for the Luminous Fish Baits, an illustration of which it given herewith. The merits of the Luminous Bait are not only recognized throughout



the United States and Canada, but many fishermen in foreign countries are being convinced that it is a very practical and effective fish lure. It is especially adapted for fishing on dark days, night fishing or in muddy water. The many unsolicited testimonials received by the manufacturers from fishermen all over the country are a guarantee that the bait is of excellent quality.

Automatic Bicycle Balance

The Bicycle Chain Lightning Co., 29 Wes Forty-second St. New York, are offering the Automatic Bicycle Balance, shown in the illustration. The Balance as shown is applied to a bicycle. It is attached to the upper bar of the frame, and is designed to



balance a wheel perfectly. It is nickle-plated, weighs two ounces, and is adjustable to any bicycle. The manufacturers claim that the balance prevents accidents, as it keeps the wheel straight ahead; that it increases the pleasure of riding, especially on rough roads; and that corners and circles can be turned steadily and safely. It also gives the rider more confidence in his wheel, and he finds it easier to ride with hands off the handle bars.

* * *

Application has been made for a patent on a mechanical invention which bids fair to be of great value to wheelmen. It is an automatic pump for pneumatic tires. It consists of a rubber ball placed within the tire, with a check-valve both in and outside. The ball is held in place by small wire coils. The pressure on the ball while riding forces air into the tire, and when sufficiently full it will stop. It does away with pumps, and when a puncture occurs supplies a constant injection of air into the tire as you ride.

Andrae Bicycles

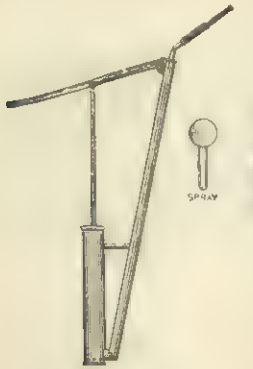
Julius Andrae & Sons Co., Milwaukee, Wis., manufacturers of the Andrae Bicycles, recently moved their works into larger and more commodious quarters. Their new factory, shown herewith, has been arranged to suit their special requirements, and the additions which have been made to their equipment will enable the company to satisfactorily handle orders for 1896.

We also present in this connection an illustration of the Andrae Light Roadster for 1896. This wheel is fitted with 1¼-inch Morgan & Wright quick-repair tires, laminated wood rims, light road saddle, Record rat-trap pedals, 66½-inch gear, ½-inch chain, 24-inch frame, curve and bent handle bars, and cork handles with black tips. The frame is finished in dark olive green with ornamental gold stripes. The company give options of equipment on all of the five models of wheels which they manufacture.

Among the special features in the 1896 Andrae cycles it may be mentioned that all are fitted with 1⅛-inch tubing and detachable and interchangeable front and rear sprockets are provided. The company's catalogue for 1896 is now ready, and will be mailed to applicants.

of order, and wearing parts soaked in boiling water, giving uniformity of action.

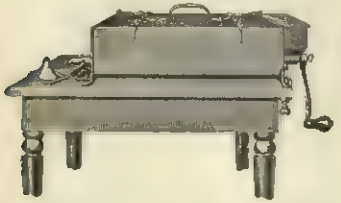
The "Daisy" is made in three styles: No. 1, of heavy tin and brass valve; No. 2, Kalamein iron and brass valve; No. 5, all



heavy brass seamless tubing. The company has issued a neat catalogue of sprayers, pruning hooks, fodder binders, etc., which may be obtained by dealers making request for same.

Polar Star Freezer

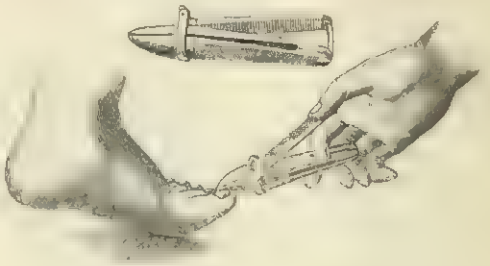
Polar Star Freezer Co., 235 Levant St., Philadelphia, Pa., manufacture the Polar Star Instant Freezer, for which several claims are made. It is said to make the smoothest kind of ice cream out of all milk; the addition of cream only makes it richer, not smoother.



This freezer mixes, mashes, pulls, grinds and whips the cream in thirty seconds, in which time a plate of ice cream is produced. It is simple to operate, has no gearing to get out of order, and its capacity is continuous. The freezer is adapted to freeze anything in its natural state. In size it is 21 x 7 x 7 inches, and an illustration of the machine appears herewith.

Hercules Nail Nipper

Schulder Bros., 545-547 Pearl St., New York, are introducing to the American trade the Hercules Nail Nipper shown in the illustration. The device is made of steel, combining a



nail nipper and a nail file. The file is on the inside of the moveable handle. A swinging catch securely shuts the nipper so that it can be carried in the pocket. It is handsomely nickel-plated, and is nearly twice the size shown in the illustration.

Water-Tight Steel Mortar and Brick Hods

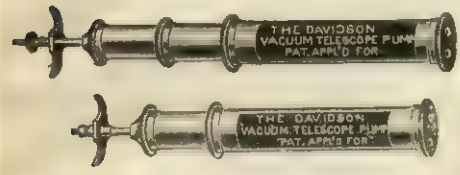
The Geauga Foundry & Mfg. Co., Painsville, O., are offering the trade the Ohio Water-Tight Steel Mortar and Brick Hods an illustration of which will be seen in the engraving. The hods, when in use, are from 25 to 50 per cent. lighter then the wooden hod.

These steel hods are water tight, and are said to be the only ones made, folded from a single piece of sheet steel without cutting the metal; they are reinforced on the edges and at the dumping point, and are provided with a double end.

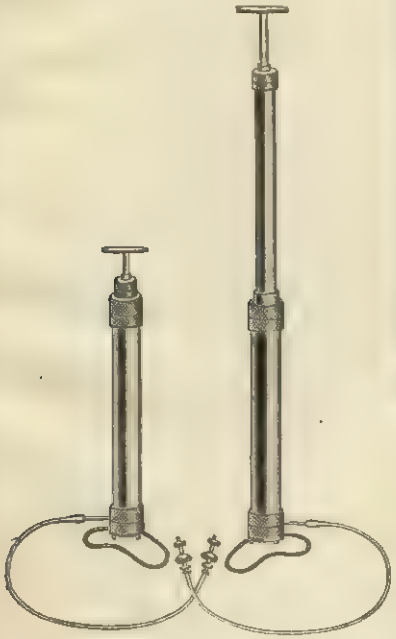
In order to make it easy for the user to

Davidson's Vacuum Telescope Pump

Davidson & Sons, 762 Monadnock Block, Chicago, are marketing the Davidson Vacuum Telescope Bicycle Pump, illustrated in the accompanying engravings. The smallest illustration represents the Duplex Davidson Pump



partially opened. The next larger size cut represents the Triplex, and the largest cut is the Floor Pump, showing it both open and closed. The vacuum and telescopic devices,



while enabling the cyclist to economize space, render it possible to secure an amount of power, length of air chamber and plunger stroke in excess of the usual style of pumps.

Companion Bicycle

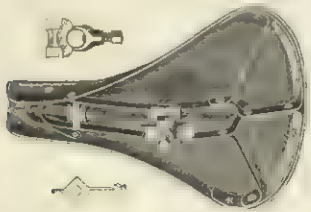
Mr. W. J. Goold, of Toronto, Canada, has patented the Companion Bicycle shown in the accompanying illustration, and the wheel will be manufactured by the Punnett Cycle Mfg. Co., Rochester, N. Y.

By referring to the engraving it will be seen that the wheel is constructed practically the same as a bicycle intended for one person; obviously the parts are proportionately stronger, in order to sustain the weight of two riders. Two sets of handles, saddles, and pedals are provided. It is immaterial whether riders are of equal weight, the adjustment being such as to allow a person of 200 pounds to have a companion weighing only 75 pounds. It is said to ride more easily than a tandem bicycle, and has the advantage of having your companion by your side, to whom you can converse as easily as if walking by her side. If desired the wheel can be readily changed to accommodate only one rider. In weight the wheels range from 35 to 40 pounds.

Kells Bicycle Saddle

The Kells Mfg. Co., Cleveland, Ohio, are offering the Kells bicycle saddles. These saddles are constructed particularly with a view to being more durable and stronger than

any other saddle, and the same time being light in weight. In construction nothing is used but the best oak-tanned leather, and the company's fastener for both the clip, direct seat post and taking up of the leather is one of the features of this saddle. Although this



company has been organized but a short time some of the best riders in the country have given their saddles hard usage and the first complaint has yet to be received. It is the aim of the makers to put out nothing but the finest goods of the kind ever made, and they fully guarantee their product.

Pneumatic Corker

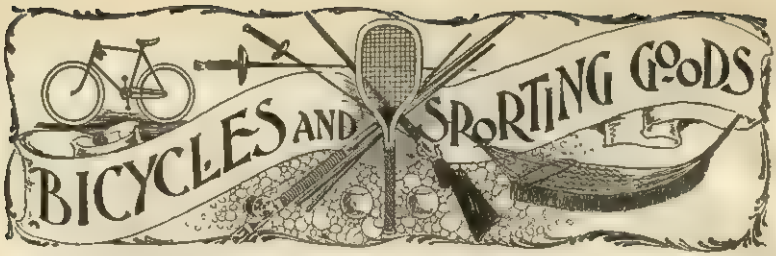
Mr. Anson Searls, 95 Passaic Street, Newark, N. J., is the manufacturer of the Pneumatic Corker, an ingenious bicycle tire repairer, two illustrations of which are shown herewith. This device is a hollow rubber ball set in an adjustable clamp. It is not intended to mend a tire, but simply to compress it where punctured, thus preventing escape of air and allowing the rider to get to a repair shop. In use the compression under the clamp drives the air into and inflates the top, making a pneumatic tread where the tire is compressed, the rubber ball taking the place of that part of the tire where punctured. When out of use the device is secured to the saddle post, and when needed it can be put into use in a very short time, and lasts for a long time where a permanent repair of the tire is not convenient. For tires having an inner tube lapping near the valve, screw the clamp down, compressing the tire about two-thirds the distance, but not enough to prevent the air from running under

the ball through the tube. The tire is then inflated and the clamp is screwed down until the top of the ball is flush with the outer surface of the tire.

Aladdin's Bicycle Lamp

The Aladdin Lamp Co., 120 Market St., Newark, N. J., are the manufacturers of Aladdin's Bicycle Lamp, shown herewith. This lamp is said to light up the entire road, giving sufficient illumination to enable one to read

small print at a distance of twenty feet. It burns eleven hours, weighs six ounces, and is fully nickeled. It will not go out when lighted and will not smoke.



The Chicago Cycle Show

The Chicago Cycle Show, which will be held at Tattersall's under the direction of the Board of Trade of Cycle Manufacturers, Jan. 4th to 11th, will be productive of great good, both in direct returns to the exhibitors, and in the education of the agents and others attending. A number of novelties will be shown, but the tendency is changing, and few freaks will be seen. Opinions from a large proportion of the manufacturers and dealers who have secured space lead to the prediction that while the displays will not lack in artistic effect, the machines and parts shown will be on standard lines. The makers of sundries and parts will exhibit some novelties. but in general these are of rational design, and with few exceptions the show will be devoid of startling innovations. It is well that it is so, for the bicycle business and its kindred trades have found the level of legitimate trading, and are now an important factor in the commerce of the world.

Within the recollection of the you men in the trade the business was considered unstable, and one that would have at best a short life. Time has shown the fallacy of this idea. and anything tending toward still greater stability and dignity is to be welcomed with full appreciation by every one connected with the trade. On these lines it is worthy of note that the spaces of exhibitors will contain few departures from standard lines in cycle construction and attachments. Such radical changes and features, as will be seen, will possess practical value, and innovations may be counted as deserving of more notice than those shown in former years.

If it were possible to get the use of a building with double the floor space of Tattersall's, which is located at the corner of Sixteenth and Clark streets, every inch of it would be occupied by those establishments which have already been allotted space at the Chicago Cycle Show, as well as by those who were late in making application for space and so denied the opportunity of exhibiting their wares. Originally it was planed to hold the exhibition in the Coliseum building, which hugh structure collapsed as it was being erected. The Coliseum will be available for the next Chicago Cycle Show, for the building is now being reconstructed and will be ready for occupancy by next summer.

That the representation will be of the widest character, is patent to any one who will carefully examine the list of exhibitors. Agents and attendants at the show will again be entitled to the same reduction in railroad fare which was obtained for them on the occasion of the last Chicago show. A rate of a fare and a third for a round trip ticket will be issued.

Tattersall's building is not more than 10 minutes' walk from the center of the business district. The appearance of the show will be much superior to that seen at the last exhibition. The exhibits are mixed, and not as they were last January, in departments.

Every effort has been made to bring agents to Chicago for the purpose of inspecting the new models, and it is expected that at least 5,000 dealers will be recorded upon the trade visitors' book. Over one hundred manufacturers have prepared exhibits.

* * *

The Cycle Board of Trade has adopted a resolution whereby its members guarantee their wheels for a period of six months, but some of the individual members of the board have already announced in their catalogues that they will guarantee wheels for a year. It is likely that the six months' guarantee will be agreed upon by the members of the board for another year.

line is especially adapted for work to be performed during the winter, being indoor labor. Dealers interested in any branch of sheet metal work are requested to send for the latest catalogue issued by this company.

* * *

We are in receipt of final advices from the judges of the Mechanics' Charitable Association of Boston, announcing the award made the Bissell Carpet Sweeper Co. of a special diploma confirming the silver medal award made in 1892 for continued excellence. This is the highest award granted on carpet sweepers.

* * *

"The Pearl Fisheries of the Orient" is the title of a neat twenty-page pamphlet published by Landers, Frary & Clark, New Britain, Conn., in the interest of their fine table cutlery. A very interesting account of the pearl fisheries, interspersed with pen sketches, occupies three-quarters of the pamphlet, the remaining pages being devoted to some excellent half-tone engravings of table cutlery, accompanied by brief descriptive text. It is worth reading and a copy will be sent to dealers making application.

* * *

Sargeant Mfg. Co., Newark, N. J., manufacturers of saddlery hardware, gig saddles, coach pads, etc., issue a carefully prepared catalogue of over 200 pages, illustrating and describing their goods.

* * *

The Union Mfg. & Plating Co., successors to the Kingsley Specialty Co., Freeport, Ill., have issued a new catalogue of their hardware and house furnishing specialties. The company manufacture novelties for inventors in addition to their regular line.

* * *

The Dille & McGuire Mfg. Co., Richmond, Ind., have put out a handsome souvenir devoted to their line of Lawn Mowers. McGuire's Diamond Lawn Mower was used exclusively on the lawns of the World's Columbian Exposition at Chicago. A number of half-tone illustrations showing the Lawn Mowers in operation, in addition to views of several of the buildings at the World's Fair, are presented. Fac-simile letters from officers of the Exposition Company are given. One of these views is shown in their advertisement in this issue.

The Lenox Sprayer Co., Pittsfield, Mass., have issued a folder, addressed to the dealer, referring to the Lenox Improved Sprayer. This device is designed to be carried on the back. A hose is attached to the tank containing the fluid, at the end of which is the sprayer. The user simply turns a stop cock when the sprayer is ready for use. Both copper and galvanized iron sprayers are furnished.

Syndicate Buyers

NEW YORK City.

Editor Hardware Dealer:

In an article in the December number of your magazine, entitled "Syndicate Buyers," I noticed that the customer (from whom the Pike Mfg. Co. received a letter) asks the following question:

"If this is the case, is there any reason why we should not have the benefit of that commission?"—viz., the 5 per cent. which the Pike Mfg. Co. allowed the syndicate buyer.

I think there is a very good reason why the customer should not have it; in fact, I can see no justice in his claim. The syndicate buyer is in business to make a living, and not for his health alone, and if he invests his money and time in traveling and looking up customers for any manufacturer he becomes in one sense the representative of that manufacturer, and he may, in many cases, visit localities not reached by the manufacturer, for the reason that the firm's lines may be such that the trade in that particular locality would not pay him (the manufacturer) to send a man there. The syndicate buyer, having a large variety of lines, could afford to do so; in such cases the manufacturer could well afford to pay 5 per cent. for the work done, as it would probably cost him (the manufacturer) from 10 to 15 per cent. to send his own representative.

I think that the Pike Mfg. Co. make a mistake in the stand they have taken, for the next customer may write to them requesting the withdrawal of their regular traveling man, and give him (the customer) the amount saved thereby.

No doubt the Pike Mfg. Co. would be only too pleased to do this. "PROGRESS."

Wire-Laced Wooden Bicycle Rim

The Waddel Wooden Ware Works, Greenfield, O., have recently patented a Wire-Laced Wood Bicycle Rim, several views of which we present herewith. To avoid the occasional tendency of wood rims to split or break, the company have invented, and are about to put on the market, the rim referred to. The rim is laminated, i. e., several pieces are joined together, and the entire circumference is wire laced. The manufacturers

claim this rim to be the lightest, strongest and most serviceable yet invented. No. 24 tough, steel wire is used for lacing the rim, the operation being not unlike that of a shoemaker sewing on a sole to a shoe. The novel construction of the double lock joint is such as to make it lock the tighter when subjected to a great inward pressure.

Referring to the illustrations, Fig. 1 represents a section of the rim cut away to show the lacing through the side. But one length of wire is used in the whole rim, and so effective is the lacing that it is almost impossible to split the rim; it is asserted that it will withstand a much greater inward and outward pressure than the ordinary plain or laminated wood rim.

Fig. 2 represents a cross section of the rim "in the rough," showing each side with grooves cut from the wood strips. Fig. 3 shows the same, with cross section of the wire lacing. Fig. 4 is the same with cross section of inserted wood strips and wire lacing. Fig. 5 shows a cross section of the rim complete. It will be seen in Fig. 7 that the rim is thoroughly laced, the wire completely binding the wood around the hole for the nipple, as well as between the holes. Figs. 8, 9 and 10 illustrate the double lock joint, the ends of the tenons being beveled toward the inside of the rim, and the ends of the rim from which these tenons project beveled in the opposite direction, thus forming an interlocking joint. Fig. 6 is a section of the finished rim showing this joint, further supported by the wood strips "A," the ends of which are joined at a different section of the rim. To add strength to the rim joint it is wire-laced.

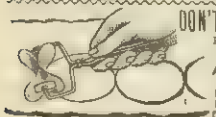
A further claim is made that a much lighter and stronger rim than the plain wood or laminated wood rim can be made, because the wire reinforces and strengthens it at all points. In lacing the rim very small holes are bored to admit the two thicknesses of wire. In coating the grooves in each side of the rim with glue, preparatory to inserting the strips, the holes become full of glue, which hardens and makes the rim equally as strong as before the holes were bored. Should the wire break at any point after the wheel is in use, the wood strips firmly bind it to the wood.

A building with over 30,000 feet of floor space is being erected and equipped with the latest improved wood rim machinery. This building will be heated by steam and lighted by electricity throughout, with steam elevator and all modern conveniences. The manufacturers expect to have their plant in running order by Feb. 1.

Star Lathes

Foot power
Screw cutting
Automatic
Cross Feed

9 and 12 inch Swing.
New Designs. Novel Features.
Send for Catalogue B.
SENECA FALLS MFG. COMPANY,
327 Water St., Seneca Falls, N.Y.



DON'T BURN YOUR FINGERS

But use the Standard Asbestos
FLAT IRON HOLDER.
ALWAYS COOL
Chicago Rotary Biscuit Cutters and other Hardware Specialties. Send for catalogue.

PAT. MAY 31, 1892. ADAMS SPECIALTY MFG. CO.
68 72d PLACE - - - - - CHICAGO, ILL.

BARNES' Foot and Hand Power... MACHINERY

For Carpenters and Builders

Send for our new Catalogue.
Trade discounts on application.

W. F. & JOHN BARNES CO...
276 Ruby Street, ROCKFORD, ILLINOIS

LeCount's Heavy Steel Clamps

Manufactured by
WM. G. LeCOUNT
(Successor to C. W. LeCount)
South Norwalk, Conn.

Send for Catalogue D for full line of Machinists' Tools.

FOR TIGHT FASTENINGS

of anything to stone or brick, try
EXPANSION BOLTS

Absolutely safe and simple. In 20 different styles. Write for Catalogue.
STEWARD & ROMAINE MFG. CO.
Sole Mfrs., Philadelphia.

Wright & Colton Wire Cloth Co.

Manufacturers of
WIRE, WIRE CLOTH and NETTING

Rust Proof Window Screen Wire Cloth, Galvanized Steel Wire Cloth, Galvanized Poultry Netting, Farm Fencing Wire Lathing, Coal and Sand Screens, Riddles, Sieves and Staples, Tinned Mattress Wire, Galvanized Clothes Line Wire, Pin and Shoe Button Wire, Chain and Staple Wire

Office and Factories, Worcester, Mass
Branch 179 and 181 Lake St., Chicago, Ill.

WOOD MANTELS

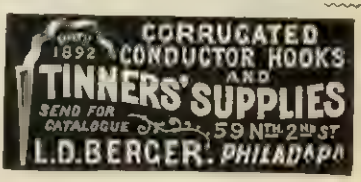
The Ironton Wood Mantel Co.

Manufacturers for the Trade

IRONTON, - OHIO

Perfection Dinner Pail

The only Dinner Pail with a lamp in the cover—out of the way. Alcohol, Kerosene or Lard Oil. Dinner and coffee warmed in a few minutes on a cold day. Workingmen prefer it every time. A great seller. Made of best tin. Patented May 15, 1894. Manufactured and sold by THE PATENT NOVELTY MFG. CO., Saginaw, Mich.
Write for Prices.



Every Family Wants One!

A Household Necessity.

THE "FAMILY COBBLER"

Contains the following articles. Iron Clinching Stand, with three reversible feet, Shoe Hammer, Shoe Knife, Pegging Awl and Handle, Large Bottle of Leather Cement, Large Bottle of Rubber Cement, Four Pairs of Heel Plates, Package of Pegs, Package of Heel Nails, Package of Clinching Nails for Men's and Boy's Work, Package of Clinching Nails for Women's and Children's work, and

THREE PAIRS OF HALF SOLES

Securely Packed in wooden box with hinged lid. Weight 17 lbs.

No family can afford to be without one of these outfits. Will pay for itself many times over each year.

For Sale by all Hardware and General Stores.

The Trade Supplied by Hardware Jobbers Generally.

BRANDENBURG & CO.,

Sole Proprietors of the "Family Cobbler," the "Family Harness Mender," the "Bonanza" Half Soles, etc.

CHICAGO.

HANDY COBBLER $2.00

Complete Shoe Repair Kit
28 Articles

Including soldering materials. Best thing ever offered for the money — and most complete outfit of the kind on the market.

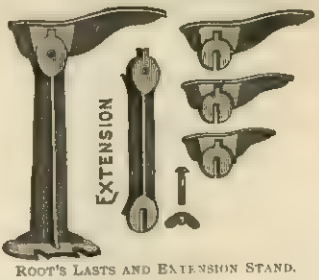
$3.00 Outfit Includes

Harness Repair Tools — 38 articles. Liberal discounts to dealers. 72 articles and only complete family cobbling and harness mending outfit on the market. Sold to but one dealer in a town. Send for prices & terms.

BOX D I

KUHN & CO., Moline, Illinois

WE MAKE MORE IRON LASTS AND BETTER ONES

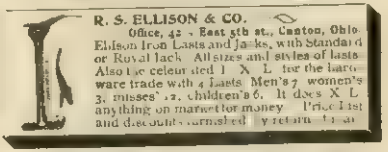


ROOT'S LASTS AND EXTENSION STAND.
Pat. Oct. 8, 1895

than any firm in America, and that's why we can furnish them at lowest possible prices. Drop us a card and see if we can't.

THE ROOT BROTHERS CO.

Station B. Plymouth, Ohio.



R. S. ELLISON & CO.
Office, 42 - East 5th st., Canton, Ohio.
Ellison Iron Lasts and Jacks, with Standard or Royal Jack. All sizes and styles of lasts. Also the celebrated I X L for the hardware trade with 4 Lasts. Men's 7, women's 3, misses' 12, children's 6. It does X L anything on market for money. Price List and discounts furnished by return mail.

THE EXCELSIOR CARPET STRETCHER and TACK HAMMER.

Can be used by anyone. None better. Simple, Effective, Strong, and Compact. Inquire of the Hardware Trade generally, or write R. W. MONTROSS, Mfr., Galien, Mich.

ACME WASHING MACHINE.

Best Single Motion Washer on Earth.
Agents wanted in every Town and Country in the U. S.

CRYSTAL WASHING MACHINE CO.,
COLUMBUS, OHIO.

Camp's SUCCESS ANIMAL POKE

The only Poke that successfully prevents animals from jumping fences and CURES the habit. Ask your hardware jobber for them or write R. W. Montross, Sole Mfr. Galien, Mich.

Davidson's Cast Iron Cat

The New Rat Catcher. The most novel device ever invented for killing rats. Strongly made and retails for 25 cents.

Write for Circulars and Wholesale Prices.

THE NOVELTY TRAP COMPANY, NASHVILLE, TENN.

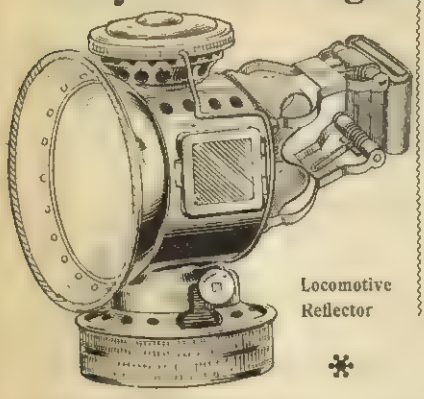
A. E. STEWART

ALUMINUM DOOR PLATE

Always bright. Quick seller
Will not tarnish. Orders filled promptly
Agents and dealers wanted to handle this and other aluminum specialties
.. WRITE FOR PRICES....

Canton Brass and Aluminum Co.
CANTON, OHIO

20TH CENTURY Bicycle Head Light



Locomotive Reflector

Burns Kerosene Keeps Lighted

ALUMINUM-BRONZE-NICKEL

Also as a **Driving Lamp**

Can be clamped on any dash or side irons of any vehicle at any angle with special ball joint attachment.

Send for circular Electrotypes for Catalogues '96 furnished on application

BETTS PAT. HEAD LIGHT CO.
10 Warren St., New York

MORGAN & WRIGHT TIRES
ARE GOOD TIRES
HARDWARE DEALERS WHO HANDLE BICYCLES: IF YOUR ADDRESS IS NOT ON OUR MAIL LIST, BETTER HAVE IT THERE. OUR PRINTED MATTER IS CONSIDERED INTERESTING
MORGAN & WRIGHT
CHICAGO

High Grade and Medium Grade ...WHEELS for the Trade

Surely Get Quotations ! !

High Grade NEW MAIL

Greatest Demand and Popularity in 1895.

See '96 Models. Also

Templar,	28 in.,	man's wheel,	-	$60.00
Atlanta,	28 "	ladies' "	- -	60.00
Red Cloud,	26 "	boys' "	- -	50 00
White Wings,	26 "	girls' "	- -	50 00
Whistler,	24 "	boys' "	- -	40 00
Midget,	24 "	girls' "	- -	40 00

Discount for quantities. Send for Catalogue.

WM. READ & SONS
107 Washington St. BOSTON

NIAGARA FALLS DID IT

The first practical result of the great power plant at the Falls is a . . .

Great Reduction in Aluminum

Aluminum Ware

is now brought within the reach of people of moderate means.

Write for Revised List and Discounts
Get in Orders Early for the Spring Trade

SIDNEY SHEPARD & CO.
Buffalo, N. Y.

C. SIDNEY SHEPARD & CO.
Chicago

CHARLES W. WELLS, New England Sales Agent, No 90 Canal St., Boston, Mass.
JUAN H. ZAMORANO, Mexican Sales Agent Avenida Morelos, 23, City of Mexico.

HARDWARE BUFFALO FORGE CO. DEALER

BUFFALO CUPOLA BLOWER

BUFFALO STEEL PLATE EXHAUSTER

"America's Best the World's Standard"

Buffalo Blowers
Exhausters
For All Purposes
Ventilating Wheels
Horizontal and Upright
Automatic Engines
Fan System of Heating Ventilating and Drying

BUFFALO "66" DRILL.

ARE OBTAINABLE OF THE

BUFFALO FORGE CO.

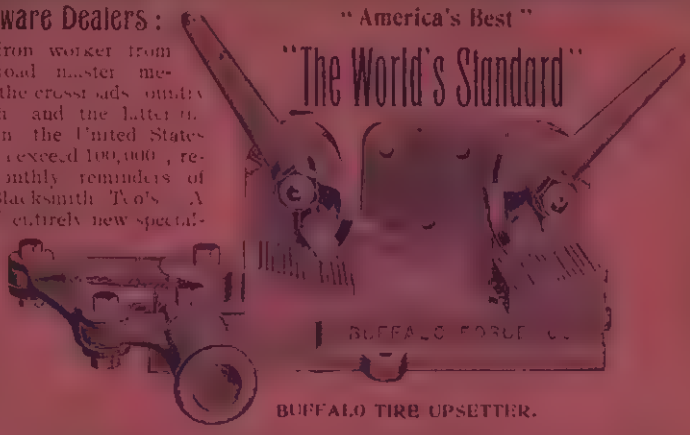
BUFFALO N. Y., U. S. A.

1896 100-PAGE CATALOGUE NOW ABOUT READY.

To Hardware Dealers :

"America's Best"

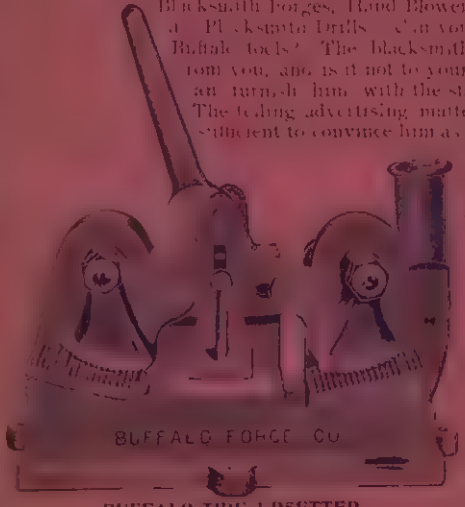
"The World's Standard"



BUFFALO TIRE UPSETTER.

Every iron worker from the Railroad master mechanic to the crossroads country blacksmith and the latter in number in the United States and Canada exceed 100,000, receives monthly reminders of Buffalo Blacksmith Tools. A number of entirely new specialties are now being placed upon the market, chief among which are the Buffalo Tire Upsetter, illustrated by the large engravings herewith. You will receive inquiries for them, and we will refer multitudes to our representing houses in all sections of country. ***Note :*** We sell to dealers exclusively. Shall we not receive

your inquiries for prices and printed matter? At the same time shall we not supply you with prices on "America's Best," "The World's Standard" Buffalo Blacksmith Forges, Hand Blowers, Punch, Shear and Bar Cutters and Blacksmith Drills? Can you afford to have any other than Buffalo tools? The blacksmith obtains his iron supply stock from you, and is it not to your advantage to let him know you can furnish him with the standard articles in the above line? The telling advertising matter he receives from ourselves is sufficient to convince him as to **whose make** to buy. This is **the** make to handle. You should have one of our 1896 catalogues of 400 pages, now about ready for distribution. It contains large engravings of all the machinery manufactured in our output.



BUFFALO TIRE UPSETTER.

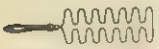
BUFFALO FORGE CO.

BUFFALO, N. Y., U. S. A.

Rakes..

STRONGEST and BEST for Garden and Lawn.

Nine Kinds. Steel Heads. Full Tinned



See those CROOKS ?

Royal Dust Beater

Best in the World

Just what you want for the Spring Trade. They cover a large surface and do the work rapidly and well

Warner Hardware Co.

Freeport, Ill.

ESTABLISHED 1860.

FRANKLIN S. MILES,

MANUFACTURER OF

BRASS, IRON AND STEEL SCREWS of every description, to order.

295 QUARRY ST. PHILADELPHIA, PA.

PATENTED JAN. 4. 1887.

Champion Egg Opener

Nickel Plate 25 cents

Silver Plate 50 cents

This improved article is one of the best articles ever introduced for **Opening Soft Boiled or Raw Eggs** No danger of soiling the table linen or fingers, no pieces of shell to bother. Any person can work it, even a child. Sent to any address by addressing Sole Patentee and Manufacturer, for *25 Cents.*

All goods warranted perfect.
Liberal discount to the trade and agents.
Patented in United States, Great Britain and Dominion of Canada.

W. R. HARTIGAN
COLLINSVILLE, CONN.

R. E. ZIMMERMAN

BEAVER FALLS, PA

Sole Manufacturer of the "ZIMMERMAN" CARPET BEATER and the "VIBRATOR" CARPET BEATER. Give best of satisfaction. Prices and Sample Beaters on application

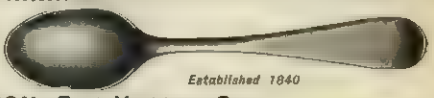
DONT DRINK DIRTY WATER, AND STILL HEALTH AND D BEARE from drinking Impure Water, ... the best and cheapest Household Self ... cleaning Water Filter ever made. NICKEL ... PLATED. FIT ANY FAUCET. Mailed free for ... cents. AGENTS WANTED.
J. H. REED, SYLVESTER STREET, NEW YORK

Highest Grade of . . . .

Silver Plated Ware

In Spoons, Forks, Etc.

Manufactured by



Established 1840

L. BOARDMAN & SON, East Haddam, Conn.

Also Nickel Silver Flat Table Ware and Britannia Spoons

Write for Catalogue and Prices

High Grade Buffing Wheels

The best the World affords.
20 Styles of Open and Sewed Buffs
Write for prices and Catalogue.

DIVINE BROTHERS

UTICA, N. Y.

New York Selling Agents. F. W. GESSWEIN
Detroit " " OAKLEY-CROUSE CO.

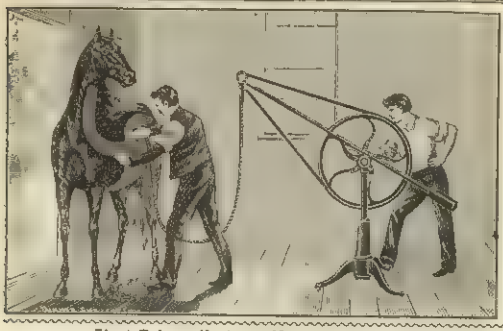
There is money in handling "ELK" and "DEFENDER" Bicycles

A full line for all ages and sizes. "Elks," $100; "Defenders," $75, $60 and $50.

We are ready to assign territory; a postal will connect us. Prompt attention to all correspondence, and deliveries guaranteed.

KOSTER & CO., *Cor. 13th and Peach Streets, ERIE, PA.*

HARDWARE SPECIALTIES DEALER



The Celebrated...

CHICAGO CLIPPER

(FLAT BELT)

Price, $25.00

Made by the

Chicago Flexible Shaft Co.

No. 142-44 Ontario St., Chicago, Ill.

The largest manufacturers in the world of Hand and Power, Horse and Toilet Clippers.

Write for Discounts

First Prize--Highest Medal of Award, World's Fair, Chicago, Ill., 1893

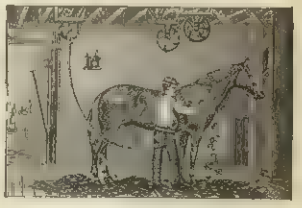
GILLETTE CLIPPING MACHINE CO. 201 East 23d Street . . . New York

J. H. FENTON & CO., 153 Michigan Avenue, CHICAGO, Western Agents.

Gillette's Celebrated Hand Power Machine

HEADQUARTERS FOR

Horse Clipping Machines

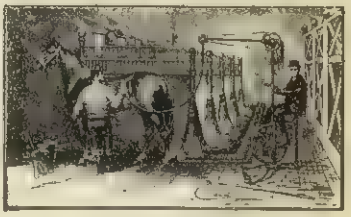


"Yoke" Clipping Machine, Operated by any Kind of Power

Greatest Variety of POWER HORSE CLIPPING MACHINES in the World.

Over 3,500 in use—Over 250 in New York City in constant operation. Introduced in the leading Horse Car Stables, Express Companies, Breweries, Dry Goods Houses, &c., in the United States and foreign Countries . . . .

Advance orders for 500 machines for Europe this season proves the popularity and superiority of our machines throughout the world . .



Bicycle Clipper

Reduced Prices **Liberal Discount to the Trade**

Fine Clipper Grinding a Specialty

Clippers ground and returned (all kinds) on the day received. New Plates supplied on all standard goods.

Prentiss Calendar Clocks.

PERFECT AND RELIABLE.

No Office, Store or House complete without one.

SPECIAL PRICES.

Made in Oak, Antique Oak, Walnut, Mahogany, with 8, 30, 60 and 90-day Clock Movements.

CORRESPONDENCE SOLICITED.

Send 2-cent Stamp for Illustrated Catalogue, or get free by mentioning this Ad. No., which is 596.

PRENTISS CLOCK IMPROVEMENT CO.,

49 Dey Street, New York.

THE LARGEST AND MOST COMPLETE FILE WORKS IN THE WORLD

Operating Four Distinct Plants

NICHOLSON FILE CO.

PROVIDENCE, R. I., U. S. A.

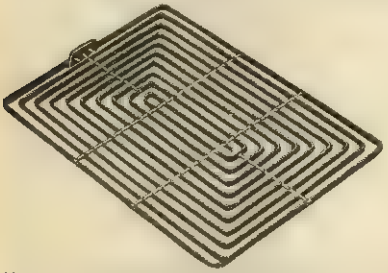
3,000 VARIETIES FILES

INCREMENT CUT FILES

Makers of Nicholson Increment Cut Files
American Brand Files and X. F. Swiss Pattern Files

Great Western Files

THE GILCHER STEEL MAT



This is the best Mat on the Market

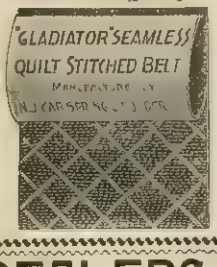
They are made with or without Scrapers on end of Mat. We are making a very low price to dealers in order to get this Mat before the public. Please write for Prices and Discounts.

We are making three sizes, viz., 16 x 24, 18 x 30, 22 x 36.

THE GILCHER STEEL MAT CO.

302 Seneca St., CLEVELAND, OHIO

Our Name and Brand
A Guarantee of Quality



"IT IS QUILTED"

An entirely new departure in the manufacture of sewed rubber belts is shown in our *"Gladiator"* Seamless Quilt Stitched Belt. It is doubly stitched, the lines of stitching being put in obliquely and crossing each other; in other words, "it is quilted." *The Strongest, Most Durable and Only Satisfactory Sewed Belt on the Market.*

SEND FOR SAMPLE AND PRICES

N. J. Car Spring & Rubber Co.

Main Office and Works, JERSEY CITY, N. J.

DEALERS ARE JUBILANT

Over this season's prices on the excellent line of Portable French Buhr Grinding Mills consisting of over 30 sizes and styles. The New Light Running Iron Mill which grinds ear corn with or without the shuck and all kinds of small grain.

The Sweep Mill and Wind Mill Grinder
The Hand and Power Corn Shellers
The Portable Saw Mills and
The Gas and Gasoline Engines

Manufactured and handled by

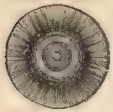
NORDYKE & MARMON CO., Mill Furnishers, Indianapolis, Ind.

Catalogues and Prices on application. Special inducements to live dealers. Estimates furnished on Roller Process Flour, Corn, Rye and Buckwheat Mills. We have whatever is wanted in the way of Mill machinery and supplies.

SEND US YOUR ORDERS FOR ANYTHING AND EVERYTHING IN TOOLS AND WATCH MATERIALS.

Order from Any Catalogue.

2 Row Bristle Wheel



3 Row Bristle Wheel

3 Row Bristle Wheel

4 Row Bristle Wheel.

Inside Case Brush.

Cotton Inside Case Buff.

Felt Inside Case Buff.

Small Cotton Buff.

Felt Buff.

Cotton Ring Buff.

Large Cotton Buff

Emery Wheel.

Six Assorted Drills.

Felt Ring Buff.

Steel Saw.

POLISHING LATHE.

No. 2007.	Lathe, without Fixture, 1 Drawer	$ 5 50
No. 2008.	Lathe, with Fixture, 1 Drawer with 10 Buffs and Brushes	7 50
No. 2009.	Extra Quality Outfit as shown	8 75
No. 2010.	With Large Two-Drawer Table, without Hand Rest	7 50
No. 2011.	With Large Two-Drawer Table, with Hand Rest	9 00
No. 2012.	With Large Two-Drawer Table, with Hand Rest and Fixture complete as shown here	11 00

Fixtures, $2.50 to $5.00 extra. Price of Hand Rest separate, $2.00.

Small Cuts are One-Half Size.

NOTICE.— We give you extra quality size of Brushes and Buffs in our best outfit, and include Steel Saw, etc., accompanying Nos. 2009 and 2012 Polishing Lathes.

MALLET.

No. 2013. Boxwood.....each, $0 15
No. 2014. Boxwood, Fine Quality.....each, 25
Ebony.....each 35

NEW STYLE MAINSPRING WINDER.

Three different size barrels go with this Winder; for 6, 8, 16 and 18 size.

No. 2016. Each.....$1 25

MAINSPRING WINDER.

No. 2015. Mainspring Winders, with Extra Collets.....each, $0 45
Nickel Plated.....each, 75

IDE'S UNIVERSAL MAINSPRING WINDER.

We are now prepared to furnish all of Ide's Tools.

No. 2018. Mainspring Winder.....each, $1 25
Nickel Plated.....each, 1 50

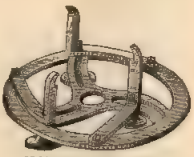
CLOCK MAINSPRING UNWINDER.

No. 2017. Nickel Plated.....each, $0 60

"AURORA" MOVEMENT BOXES.

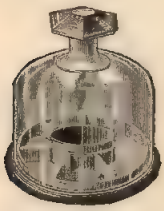
For 6, 8, 16 and 18 Size.

No. 2019. Silver Plated.....each, $2 25



MOVEMENT HOLDER.

No. 2021. Brass.....each, $0 30
Nickel Plated, each, 50



CELLULOID MOVEMENT TRAY WITH COVER.

No. 2022. Complete, each, $0 35

Cut One-half Size.

MAHOGANY MATERIAL CUPS.

Very handy and neat to put under your glass cover.

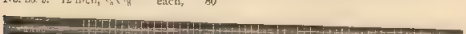
No. 2023. Mahogany Material Cups, in sets of 4, per set.....$0 60
No. 2024. Horn Material Cups, in sets of 4 per set, 1 00

MOVEMENT RESTS.

No. 2025, Boxwood, sets of 4, per set, $0 20

PLAIN TAPER STEEL RING MANDRELS.

No. 2026. 9 inch, ⅜x⅝.....each, $0 40
No. 2027. 10 inch, ⅜x⅝.....each, 60
No. 2028. 11 inch, ⅜x⅝.....each, 75
No. 2029. 12 inch, ⅜x⅝.....each, 80
No. 2030. 13 inch, ⅜x⅝.....each, $0 90
No. 2031. 14 inch, ⅜x⅝, Plain.....each, 1 00
No. 2032. 14 inch, ⅜x⅝, Nickel.....each, 1 25



GRADUATED STEEL RING MANDRELS.

No. 2033. 14 inch, Plain.....each, $1 00
No. 2034. 14 inch, Nickel Plated.....each, 1 25

PERFECTION MACHINE OILER.

The body is stamped of heavy tin, the spout lapped and has a drip cup at its base with which all the spout drippings are caught. The bottoms are of brass.

No. 2035. Tin.....each, $0 10
No. 2035½. Brass.....each, 15
No. 2036. Tin.....per doz., 75
No. 2037. Brass.....per doz., 1 25

"Home"

"Hero"

"Rapid"

ICE CREAM FREEZERS

"HOME" 2 to 10 quarts

"HERO" 2 to 10 quarts

"RAPID" 2 to 40 quarts

TUBS, CANS, MOULDS, ETC

CLEMENT & DUNBAR, 1129 Beach Street, Philadelphia

POLAR STAR ICE CREAM FREEZER

Size 21 x 7 x 7 inches
Capacity Unlimited
Retail Price, $3.50

It makes perfectly smooth Ice Cream with milk in 30 seconds, and is simple, convenient and economical. Puts and works the cream after frozen into perfect smoothness. You must see before you can believe. Correspondence Solicited. Send for particulars and discount

Manufactured Solely by the

Polar Star Freezer Co.

235 Levant St., PHILADELPHIA, PA.

THE CONROY

Refrigerator Door Fastener.

The best and cheapest on the market.

Beware of Infringements

Patented 1885

Used by the largest refrigerator manufacturers in the country

MANUFACTURED BY

P. J. CONROY, PASSYUNK AVE. & PASSYUNK SQ. PHILADELPHIA, PA.

THE

"GOOD LUCK" FREEZER

Is the BEST

CHAS. W. PACKER

Manufacturer

20 N. Fourth St., Philadelphia

Write for prices and discounts

LIKE IT?

WELL, RATHER—

The Happy effect upon the Three Darkies (in Florida, by using

The Ohio Freezer

is but an index of the solid satisfaction of the wide-awake dealer handling this Freezer.

It is the Freezer to Sell or Use

A neat Show Card with enlarged picture for the asking.

THE SAMUEL C. TATUM CO.

No. 416 W. Water Street

CINCINNATI, O

HOUSE GOODS
ELECTRICAL SUPPLIES
OF ALL KINDS
WRITE FOR CATALOGUE
PARTRICK & CARTER Co
123 S 2D ST PHILADELPHIA

Send Business Card and mention Hardware Dealer

No. 7707
Iron Box Bell

Ask your dealer for the
No. 7707 Iron Box Bell

H. E. & C. BAXTER

Manufacturers
Electrical Supplies

Bedford, Division and Canton Streets

BROOKLYN, N. Y.

THE BARDLEY SHAFT-COUPLING

The only real quick shifting, anti-rattling coupling ever put together. Complete in itself and always ready. No Bolts, No Nuts, No Screws, No Rubbers, No Wrench, No Rattle. Over 20,000 pairs in use. 12,000 pairs sold in 1898

Send for Circular and Price List.

C. C. BRADLEY, Jr.
SYRACUSE, N. Y.

WIN A BUYER
BUY A SELLER
SELL A WINNER

HARDWARE SPECIALTIES DEALER

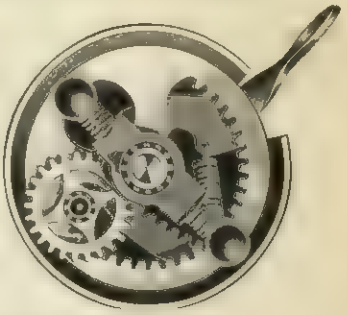
You will hear the Climax Bells

AND WHY? BECAUSE

The CLIMAX BELLS are the best and most scientific yet constructed. The stroke is positive whether pulled slow or quick, giving 28 blows from each pressure of the lever Examine and compare it with other bells.
Our No. 3, 4 and 5 bells have 16 positive strokes, being more than any other bell, and each stroke much more effective, as the hammers are solid steel balls Our No 6 bell double stroke is a little wonder.

Examine the mode of fastening the Bar-Lock Clamp. On top of each Bell. Don't take an imitation.

CLIMAX BOSTON TRADE MARK



We have the best line of Bells made, and our large sales say our prices are right. Send for price list and samples before purchasing elsewhere.

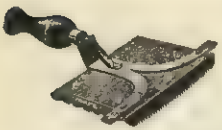
CLIMAX BELL CO., 403 Washington St., Boston

CLIMAX BELL CO.
1886 Notre Dame, Montreal, Canada

HARTLEY & GRAHAM
Agents for New York City, Brooklyn and Jersey City

In Stock

Over 100 Most Popular Styles of

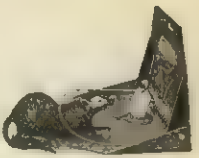


Curry Combs

Also THE TWO BEST TRAPS ever offered

Nos. 20 and 21

SELF-SETTING RAT KILLERS



Write for Catalogues and Prices of
CLIPPERS, TRAPS, WRENCHES, COMBS, ETC.

Edward S. Hotchkiss

John R. Graham & Co., Agents,
113 Chambers street, New York

BRIDGEPORT, CONN.

HARDWARE SPORTING GOODS DEALER

7 Reasons *why you should shoot U. M. C. Cartridges loaded with SMOKELESS Powder.*

Increased Velocity
Greater Execution
Less Smoke
Less Noise
Less Recoil
No Leading of Barrels
Accurate as Black Powder

Now Ready

22 Short R. F.; 32 S. & W. C. F.; 38 S. & W. C. F.; 25-20 Marlin C. F.

OTHER SIZES IN PREPARATION

A NEW SHELL

Now ready in limited quantities. Branded "Nitro" Maroon color, using New No. 5 Primer. A perfect shell for Nitro powders and positively does not require priming with black powder. Same price as other low priced shells.

The Union Metallic Cartridge Co.

New York Office, 313-315 Broadway. ◉ BRIDGEPORT, CONN. ◉ San Francisco Office, 517-519 Market Street

The COLUMBIAN "SPECIAL"

WITH NEW POSITIVE CYLINDER STOP

Safest, Strongest, Lightest and Most Accurate Self-Ejecting Revolver Made

32 and 38 Calibre

See that Stop

For Sale by all Jobbers

It has a positive Cylinder Stop, and will positively "stop" anything that does not want to wait

ADOPTED BY THE LEADING POLICE DEPARTMENTS

The only medium-priced, Automatic Revolver in the market with a positive cylinder stop

Send for Illustrated List

The Columbian Fire Arms Mfg. Co. Philadelphia, Pa.

When you see the line of

Crescent Bicycles for 1896

We think you will agree with us that they must prove the

SELLERS OF THE YEAR

Of Latest Design *With Latest Improvements* *Of Superb Finish*

And as the first High-Grade Wheel to be put upon the market at a price of

$75.00

THEY WILL NEED NO TALKING

"CRESCENTS"

WILL SELL THEMSELVES

We are adding to our list of agents

WESTERN WHEEL WORKS

BUILDERS

Factory
Wells and Schiller Streets
Chicago, Ill.

Eastern Branch
35 Barclay Street
New York City

The Chicago Cycle Show

AT TATTERSALL'S

under the auspices and sanction of The Board of trade of Cycle Manufacturers.

January 4 to 11, 1896

Enormous Auditorium

Over 300 Exhibition Spaces

TREATMENT OF VISITORS

All visiting bicycle agents and dealers, and those in kindred lines, visiting the show are entitled to free admission to the morning sessions—which are reserved exclusively for the trade—and to half-price admissions during afternoons and evenings. To secure these concessions visitors should present business card or otherwise identify themselves. Otherwise no concessions will be granted.

REDUCED RAILROAD RATES

A rate of one fare and one-third for the round trip to Chicago will be made on all railroads in the Central Traffic Association, Trunk Line Passenger Association and Boston Passenger Committee Territory, Chicago and Ohio River Traffic Association Territory, Western Passenger Association Territory, Southern States Passenger Association Territory—142 different railroads.

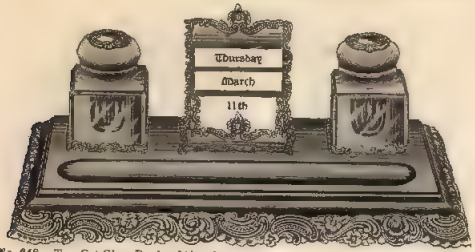
In buying tickets, the full fare must be paid to Chicago and a certificate taken from the ticket agent. This, when countersigned by an officer of the National Cycle Exhibition Co., appointed for the purpose, will entitle the holder to a return ticket for one-third fare.

Tickets going to Chicago may be purchased at any time between January 1 and 11. Tickets for the return journey any time between January 4 and 15. Tickets are good only for continuous passage

THE NATIONAL CYCLE EXHIBITION CO.

334 DEARBORN ST., CHICAGO

FINE QUADRUPLE PLATED INK STANDS.



No. 648. Two Cut Glass Bottles, 1¼ inches square..... .. . .$10 00
Calendar, Pen Tray, Stamp and Pen Point Boxes.

No. 649. Writing Set, Complete $4 50

No. 658. Double Ink Stand and Pen Holder $4 25
Length, 7½ inches.

No. 654. Ink Stand and Pen Holder..... ... . . $2 50
Length, 8½ inches

No. 650. Ink Stand, with Stamp Drawer. $5 50

No. 651. Ink Bottle, Burnished $1 75

No. 652. Ink Stand $2 25
Length, 4 inches.

No. 655. Ink Set ... $3 25
Cut 1½ inch Square Bottle, with Embossed Top, Rococo Mountings, Satin, Bright Cut Silver, with Pen Rack.
Height, 4½ inches. Length, 4¼ inches

HARDWARE SPECIALTIES DEALER

"TRIUMPH" SELF-WRINGER

MOPS of all kinds

Common and Patent

THE HORIX MFG. CO., (Successors to The Phoenix Mfg. Co.,) Cleveland, Ohio

As an article REQUIRED in the HOUSEHOLD, Hardware Dealers should obtain Samples, Prices, etc.

Business is Better and there will be a larger demand than ever for our . . . . .

Sheep Skin Mitten

Acknowledged to be the best article for polishing stoves, as it does away with the old time dirtiness of the work, making this work a pleasure. Also invaluable for polishing brass or glass, or silverware, which it does not scratch. For tan shoes and cleaning bicycles it has demonstrated itself a conspicuous success.

WRITE FOR SAMPLE AND PRICES

Diamond Hardware Co.

620 Atlantic Avenue

BOSTON, MASS.

The Ohio Stove Pipe

ONLY practical, durable, smoke-proof, knock-down Stove Pipe made, that needs no directions for putting it together. No hammering down of seams. Dealer has no work to perform. Self-Supporting. Shipped in Crates of 25 Joints, each of the following sizes: 3, 4, 4½, 5, 5½, 6, 6½, and 7 inches.

Ohio Water Tight Steel Mortar and Brick Hods

From 25 to 50 per cent. lighter than the wooden Hod **when in use.** Positively Water Tight. Made from a single sheet of steel, without cutting the metal. Edges Reinforced and at dumping point. Our improved **Malleable Iron Fork** and **Wooden Shoulder Saddle** make it easy to carry or attach cloth if desired. Improved one-price **Malleable Iron Fork** and **Socket.** Broken handles easily replaced. Shipped knocked-down

THE GEAUGA FOUNDRY & MFG. CO.

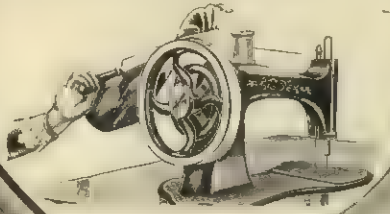
PAINESVILLE, OHIO

Diamond Wheels for Home Grinding

A Mascot

It Sells

Are instantly attached to the balance wheel of any Sewing Machine, without the aid of bolts, nuts or screws, or the removal of any part of the machine. Examine the cut; the three pieces of corrugated rubber on the inside of wheel fit snugly over the balance wheel of your sewing machine, and being attached in three positions of equal distances, form bearings that are perfectly true, while the friction of the rubber keeps the wheel snugly in position, so that it cannot possibly come off, even if running at lightning speed. The two operations of attaching and detaching the wheel takes but one second.



Retails for only 75c.

It Pays

Catch On?

THINK OF IT! Its use temporarily converts your sewing machine into a $15.00 or $20.00 grinding machine of the very highest order, making it a pleasure to do your household grinding and polishing.

The Wheel is made of iron, handsomely finished in enamel and gold, and an ornament to the finest machine. The grinding surface is composed of Crystal Carborundum such as is used by jewelers and in dentistry, which is put on to the iron surface by a new process exclusively our own, forming a beautiful, lasting, indestructible grinding surface that will not glaze as is the case with emery, but cuts rapidly and smoothly, requiring but little pressure, and therefore will not heat and draw the temper of articles ground or polished.

And for Polishing Metals and Tools in general it is without a peer. Each Wheel is neatly packed in an attractive case

Packed one dozen, assorted sizes, in attractive counter show-case for retailers.

REVISED LIST OF SIZES TO USE

For Advance Machine	No 4	For Niagara Machine	No 4
" American Machine	" 4	Paragon Machine	" 3
" Alliance Machine	" 2½	" Royal Machine	" 1
" Belvidere Machine	" 2½	" Raymond Machine	" 1
" Buffalo Queen Machine	" 2½	" Singer Machine	" 1
" Columbus Machine	" 2½	" Singer Machine (Factory	" 2
" Columbia Machine	" 2½	" Seamstress Machine	" 3
" Domestic Machine	" 2	" Standard Machine	" 4
" Davis Machine (Old)	" 2	" Wheeler & Wilson No 9	" 5
" Davis Machine (New	" 4	" " " 8	" 6
" Demorest Machine	" 2½	" " " 10	" 2½
" Helpmate Machine	" 3	" " " 12	" 2½
" Household Machine	" 3	" White Machine	" 1
" New Williams Machine	" 1	" Wanser Machine, C	" 1
" New Home Machine	" 3		

BUFFALO SPECIALTY MFG. CO.

BUFFALO, N. Y., U. S. A.

HARDWARE SPECIALTIES DEALER

Housekeepers' Favorites

AND

Dealers' Helps to Trade

LEACH ROASTERS AND BAKERS
ABELL COFFEE POTS
LEBANON CAKE CUTTERS
LEBANON EGG BEATERS AND POTATO MASHERS
PAXTON STOVE-PIPE SHELVES
MAGIC DISH DRAINERS
LYON'S DISH WASHERS
COMBINATION DIPPERS

A COMPLETE line of kitchen and housekeeping Hardware. New Specialties every few weeks. Send postal card for latest catalogue and discount sheet. It will cost but one cent, and may lead to many dollars of profit to you.

Inventors having meritorious devices in the line of kitchen hardware are invited to correspond with us. We are always at home, attending to business.

Paxton Hardware Mfg. Co.

PAXTON, ILL.

...THE

Standard Dripless Tea and Coffee Strainer

1,000,000 Already in Use

The only perfect strainer ever invented
No drips—Does not fall off
Will outwear a dozen pots
Sells every day in the year
Every dealer can sell them

WRITE FOR PRICES

STANDARD STRAINER CO.

34 Malden Lane, New York

THE ONLY DRIPLESS STRAINER IN THE WORLD

Convenient—Quick Sellers

Gem Milk Pail

With Removable Strainer

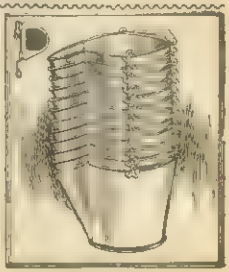
The only Milk Pail that nests
Saves Freight. Quick Sellers

For sale by all Jobbers

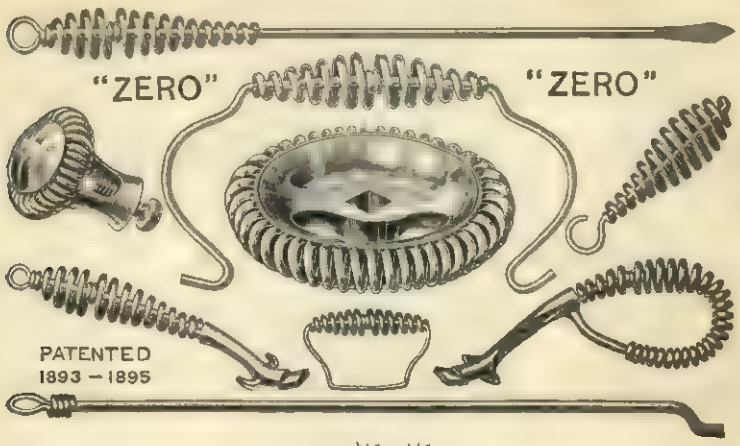
MANUFACTURED BY

BRANDON MFG. CO.

ST. LOUIS MO.



Compact—Saves Freight



* * *

"ZERO" WIRE GOODS.

Manufactured by **W. F. GREENE, Troy, N. Y.**

BURTON'S

Improved Acme Shaft Coupling

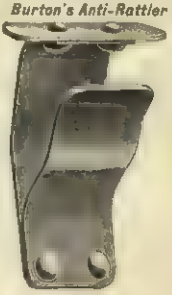
In the Improved "Acme" Anti-Rattler, we offer an article that effectually prevents any rattling in the coupling, rendering them perfectly noiseless, and will, with ordinary use, last just as long as the vehicle, and are appreciated for their following merits:

PATENTED NOVEMBER 15, 1887

No. 1.
A Perfect Anti-Rattler and Bolt-Holder Combined

1. They are quickly and easily inserted or removed by placing in position and drive in or out with a hammer, not being necessary to remove the bolt or shaft.
2. Their shape is such that they are held firmly in place by spring tension.
3. Being made of two pieces, solidly riveted together, they will not break as others made of one piece do.
4. Being made of Crescent Patent Cold Rolled Steel, every pair are warranted to preserve their strength and elasticity, and not to bend or break with ordinary use.
5. By their use much annoyance is avoided, and very often valuable time saved.
6. If the nut comes off bolt holding shaft to shackle, the bolt cannot lose out on account of the bolt-holder attachment.

Burton's Anti-Rattler

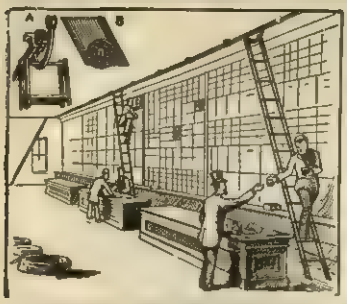


No. 2
Plain, or Without Bolt-Holder

SAMPLE PAIR FREE ON APPLICATION

Manufactured by

Columbian Novelty Co., North East, Pa., U.S.A.



Are you not tired of the old way of reaching your shelves? Why not have one of our several kinds of

Rolling Ladders?

Why not have one of the luxuries of life that pays for itself in a short time?

A postal card gets our catalogue and prices

We manufacture only the best

Parlor, Barn and Fire Door Hangers

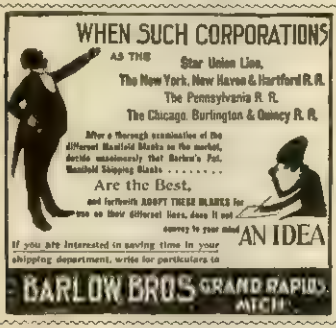
The COBURN TROLLEY TRACK MFG. CO.
HOLYOKE, MASS.

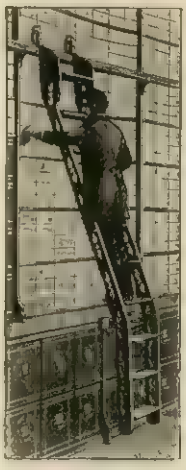
PERFECT SHELF BOXES

Hardware dealers can increase their sales by displaying their stock.

Made of Wood and Steel. Will not warp or break. Keep out all dust. Price card in view. Add greatly to appearance of store. Send for circulars and prices.

C. P. MOORE, Ravenswood, W. Va.


WHEN SUCH CORPORATIONS
AS THE
Star Union Line,
The New York, New Haven & Hartford R.R.
The Pennsylvania R. R.
The Chicago, Burlington & Quincy R. R.
After a thorough examination of the different Manifold Blanks on the market, decide unanimously that Barlow's Pat. Manifold Shipping Blanks .....
Are the Best,
and forthwith ADOPT THESE BLANKS for use on their different lines, does it not convey to your mind
AN IDEA
If you are interested in saving time in your shipping department, write for particulars to
BARLOW BROS. GRAND RAPIDS, MICH.



Our New Catalogue

is yours for the asking, and if you knew how much time (and time is money) our **Easy Rolling Shelf Ladder** would save you, we would have your specifications by next mail.

MORLEY BROTHERS,

123 So. Washington Ave.

SAGINAW, MICH.

GARDINER BINDING AND MAILING CO.

Newspaper Mailing Agency
and Pamphlet Bindery

OUR SPECIALTIES.....

Binding and Mailing Newspapers, Magazines, Pamphlets, Catalogues, etc. Addressing Envelopes to all Trades and Professions.

We can furnish copy of list, or address your envelopes to about 20,000 live Retail Hardware Merchants.

Nos. 214-218 William Street

Telephone No. 1740 Cortlandt ∴ NEW YORK

Revolving Dating Stamp

SAMPLE POST-PAID FOR

50 cents.

THREE FOR A DOLLAR.

HALF ACTUAL SIZE
SIZE OF TYPE

DEC 25 1895

D. T. MALLETT,
Broadway and Chambers Street, · New York City

HARDWARE BICYCLE LAMPS DEALER

NEW IN PRINCIPLE

PATENT PENDING

Will Not Jar Out

NO SMOKE
NO SOOT
NO GREASE
NO ODOR

ALWAYS CLEAN AND BRIGHT

LIST, $5.00. SEND FOR SAMPLE

CHICAGO, Sept. 21, 1895.

GENTLEMEN:—You have certainly solved the Bicycle Lamp problem with your Globe Vapor Lamp. Like the rest of the Cycling fraternity, I have had all the experience I care to have with the dim, greasy, smoking, old style Lamps, that were sure to jar out at every street crossing. Since using your Globe Vapor Lamp, night riding has been transformed from a bother to a pleasure. The bright, diffusive and constant light it gives, and the freedom from annoying qualities, make it the Ideal Cycling Light. I would not part with mine for $20.00, unless I knew I could get another.

Very truly yours,
SIGNED:— SIDNEY P. JOHNSTON

Member of Chicago Cycling Club
Editor of the "AMERICAN ARTISAN"

HIBBARD, SPENCER, BARTLETT & CO., Sole Agents, - - - CHICAGO

Successful Sailing...

through troubled seas of business is the aim of all business men. Many firms have built up a great business by careful attention to the wants of their customers, and by supplying those wants. Few bicycle makers pay enough attention to the wants of dealers. Most makers simply copy the productions of another maker, without knowing whether they are correct or not.

"Within the past three years the Grand Rapids Cycle Co., (Makers of Clipper Bicycles) has advanced with strides which have surprised all who knew them. Success has been due to a careful study, and a knowledge of the wants of dealers."

No maker takes more (and few as much) interest in the *dealer* than we do. Each year we communicate with our customers, asking for criticisms and suggestions which will improve our wheels. Our '96 product is the result of practical suggestions and improvements of *dealers* backed up by a *knowledge* and *experience* of men, who for ten years or more have been practical wheelmen. Mr. *Dealer*, your success in selling bicycles

depends upon a good Pilot

wheel for a *leader*. Why not handle *New Clippers*, make a *leader* of them? They, with the help of the concern which builds them, will guide you safely to the *Business Harbor of Success*

MADE BY THE GRAND RAPIDS CYCLE CO.

$3. Aladdin's Lamp

Will make trade active

RETAIL — The Light of America

Full Nickel, Imported Jewels etc. It sells on sight

THE ALADDIN LAMP CO., - Newark, N. J.

SPECIAL GOODS MADE TO ORDER.....

SPECIAL GOODS MADE TO ORDER

SPECIAL GOODS MADE TO ORDER

SPECIAL GOODS MADE TO ORDER

A MOTTO FOR '96 "Buy only goods of Known Merit"—It Pays! Pike's Whetstones are standard in their line

THE HARDWARE DEALER.

A MAGAZINE OF HARDWARE, STOVES AND HOUSE FURNISHINGS

NEW YORK AND CHICAGO

January, 1896

THE NEW YEAR.

HARDWARE RESOLUTIONS FOR 1896
What Some Hardwaremen Will Do to Make 1896 Better Than 1895

REFORM THE NAIL CARD

HARDWARE DEALERS' EXCHANGE

EXPORT NOTES

DESCRIPTIONS OF MANUFACTURE.

ADVERTISING THE STORE

HARDWARE DEALERS LIST
Part I. Alabama Idaho.

BULLETIN OF NEW DEALERS

BICYCLES AND SPORTING GOODS.
Chicago Cycle Show New Goods Illustrated and Described.

PLUMBING AND HEATING
Association Notes New Goods Illustrated and Described

STOVES AND HOUSE FURNISHINGS

NOTEWORTHY NOVELTIES.

FOREIGN HARDWARE DEALERS
South America Central America—West Indies Colonies

10 cents a copy | D. T. MALLETT, Publisher | 271 Broadway, NEW YORK. | One Dollar a year.

Cleveland Twist Drill Co. Our Drills Warranted the Most Durable Made

ROMMER SPRING HINGES ROMMER SPRING HINGES

SEND US YOUR ORDERS FOR ANYTHING AND EVERYTHING IN TOOLS AND WATCH MATERIALS.

Order from Any Catalogue.

No. 1000

No. 2717.

These prices do not include a post, but include all attachments which are on the Sign, and is ready to set into your wooden post.

Sizes and Prices.

No. 2717.	24 inch.....	$15 80
No. 2718.	26 inch.....	18 80
No. 2719.	28 inch.....	21 80
No. 2720.	30 inch.....	23 80
No. 2721.	36 inch.....	29 80
No. 2722.	38 inch.....	32 80

Handsome. Cheap. Durable.

GROUT'S NEW IMPROVED CARVED IRON WATCH SIGN WITH NEW OVAL EYE SPEC. ATTACHED.

Swell Metal Dials.

No. 300

No. 2723.

Sizes and Prices.

No. 2723.	12 inch, with Spec..	$ 8 00
No. 2724.	14 inch, with Spec.	9 50
No. 2725.	16 inch, with Spec.	10 80
No. 2726.	18 inch, with Spec . .	12 80
No. 2727.	22 inch, with Spec.	20 50
No. 2728.	24 inch, with Spec	21 50
No. 2729.	26 inch, with Spec .	25 00
No. 2730.	28 inch, with Spec	29 00
No. 2731.	30 inch, with Spec	30 00
No. 2732.	36 inch, with Spe	38 00
No. 2733.	46 inch, with Spec	49 00

A Perfect Sign.

Made of the best Iron and Handsomely Carved. Have full Swell Metal Dials, and are gilded with the Best XXX Gold Leaf.

HANDSOMELY CARVED -- GROUT'S NEW OVAL EYE AND OCTAGON IRON SPEC. SIGNS. -- HANDSOMELY CARVED.

No. 2734.

Under View, showing Thickness of Same.

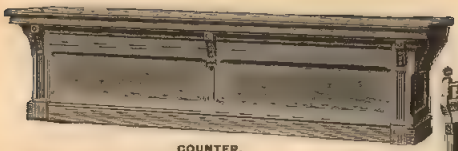
No. 2737.

With Name Letters on Rims.

Sizes and Prices.

No. 2734.	12 inch.	$ 2 00
No. 2735.	18 inch.....	2 80
No. 2736.	24 inch.....	4 80
No. 2737.	30 inch.....	6 70
No. 2738.	38 inch	$ 8 00
No. 2739.	45 inch.....	10 00
No. 2740.	60 inch	16 00

All Genuine have Letter 'G' on End of Spec.

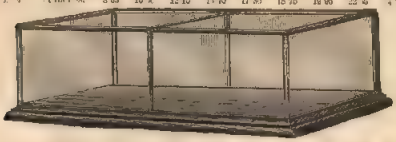


COUNTER.

4 ft.	5 ft.	6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	11 ft.	12 ft.
$14 00	$17 50	$21 00	$22 75	$26 50	$29 25	$32 50	$35 75	$39 00

Made in Walnut, Oak, Ash or Birch Cherry Stained.

	Height.	3 ft.	4 ft.	5 ft.	6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	12 ft.
No. 1	15 inches.	$6 25	$ 8 25	$ 9 75	$11 50	$13 00	$14 50	$17 00	$19 00	$19 95
No. 2	17 inches.	6 40	8 30	10 20	12	14 10	17 00	19 05	21 25	24 85
No. 3.	19 inches.	7 85	9 05	10 25	13 30	15 20	17 95	19 00	21 25	23 80
No. 4	21 inches.	8 55	10 35	12 15	15 60	17 30	19 75	19 95	22 45	24 70



	Height.	3 ft.	4 ft.	5 ft.	6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	12 ft.
No. 5.	15 inches.	$5 50	$6 65	$ 8 30	$10 00	$11 55	$13 15	$15 00	$ 16 65	$21 85
No. 6.	17 inches.	6 2	7 60	9 50	11 40	13 30	14 75	17 10	18	23 00
No. 7	19 inches.	6 65	8 10	9 45	13 30	15 20	15 70	17 00	19 95	24 25
No. 8	21 inches.	7 60	9 30	11 00	14 25	16 15	17 60	20 45	23 75	25 95

Both of above Cases made in Black Walnut, Oak, Ash, Birch or Cherry.

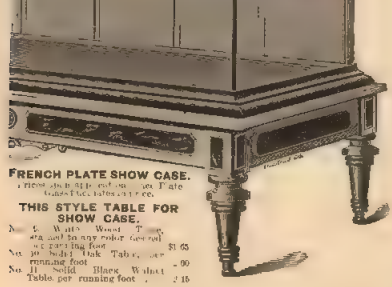
In ordering, be particular to state length, size, wood and if Oak, quarter sawed or plain.

Mitred corners add 10 per cent. We send no cases with glass unless ordered to open first. Orders filled same day received. All cases are packed very carefully, and shipped in the strongest manner possible to prevent breakage. Always state if Cases are to be Dark Finish, Brass bridge, Antique or Nickel, Burnished Frost Proof Plate Glass. Purchaser pays all express freight and cartage. In buying Show Cases it is only the best that pay, and we always aim to give our customers the best value for their money. Cases No. 5, 6, 7 and 8.

We ship on this page, covered, packed and delivered at the city free of charge.

No. 1 4 foot Cases hold 6 Trays, 11x14 inches, No. 2 4 foot Cases hold 6 Trays, 11x15½ inches.
No. 3 5 foot Cases hold 8 Trays, 11x14 inches, No. 4 5 foot Cases hold 8 Trays, 11x15½ inches.
No. 5 6 foot Cases hold 11 Trays, 11x14 inches, No. 6 6 foot Cases hold 11 Trays, 11x15½ inches.
No. 7 7 foot Cases hold 14 Trays, 11x14 inches, No. 8 7 foot Cases hold 14 Trays, 11x15½ inches.
No. 9 8 foot Cases hold 18 Trays, 11x14 inches, No. 10 8 foot Cases hold 18 Trays, 11x15½ inches.
No. 11 9 foot Cases hold 24 Trays, 11x14 inches, No. 12 9 foot Cases hold 24 Trays, 11x15½ inches.
We put all the above Cases on board cars at the factory.

3 ft.	4 ft.	5 ft.	6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	11 ft.	12 ft.
70 lbs.	90 lbs.	110 lbs.	130 lbs.	160 lbs.	180 lbs.	200 lbs.	225 lbs.	250 lbs.	275 lbs.



FRENCH PLATE SHOW CASE.

Prices and Sizes on French Plate Glass Show Cases, same as above.

THIS STYLE TABLE FOR SHOW CASE.

No. 9. Walnut Wood Top, 42x22 inches, with one robust Leg and one running foot . . . $1 65

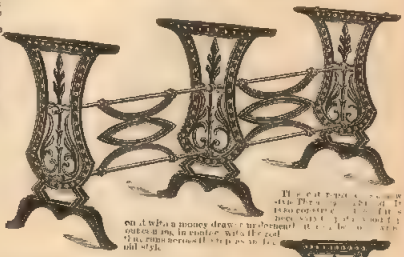
No. 10. Solid Oak Table, per running foot . . . 90

No. 11. Solid Black Walnut Table, per running foot . . . 2 15

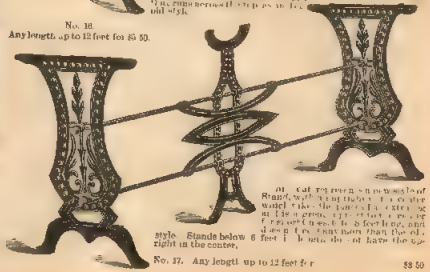
WALL CASE.

No. 13.	6 foot	$40 00
No. 14.	8 foot	60 00
No. 15	10 foot	75 00
No. 16	12 foot	90 00

These cases are hung up, balanced by weights. The doors are unbreakable Plate Glass. With these cases no support is required. Can be hung against brick, frame or plaster. Walnut, Oak, Antique Oak or Birch Cherry Stained.



No. 12. Any length, up to 12 feet for $5 50.



No. 17. Any length up to 12 feet for $3 50

SEND US YOUR ORDERS FOR ANYTHING AND EVERYTHING IN TOOLS AND WATCH MATERIALS.

Order from Any Catalogue.

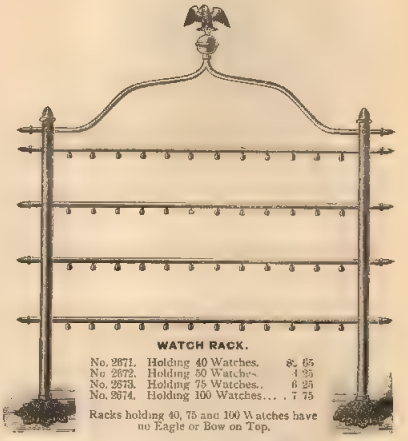
THE FINEST CARVED IRON WATCH SIGNS.

Prices Each.

Sizes and Prices.

No. 2675.	12 inch	$ 6 50	No. 2680. 24 inch, $18 50
No. 2676.	14 inch	7 50	No. 2681. 26 inch, 25 00
No. 2677.	16 inch	9 50	No. 2682. 28 inch, 36 00
No. 2678.	18 inch	11 00	No. 2683. 30 inch, 75 00
No. 2679.	20 inch.	16 50	No. 2684. 36 inch, 82 50
	No. 2685.	46 inch	$42 50

Handsomest Signs Ever Made in the Market.



WATCH RACK.

No. 2671.	Holding 40 Watches.	$5 65
No. 2672.	Holding 50 Watches.	4 25
No. 2673.	Holding 75 Watches..	6 25
No. 2674.	Holding 100 Watches....	7 75

Racks holding 40, 75 and 100 Watches have no Eagle or Bow on Top.

Sizes and Prices.

No. 2696.	12 inch,	$ 5 50	No. 2700. 24 inch, $14 00
No. 2697.	14 inch,	6 80	No. 2701. 26 inch, 17 00
No. 2698.	16 inch,	7 50	No. 2702. 28 inch, 20 00
No. 2699.	18 inch,	9 80	No. 2703. 30 inch, 22 00
No. 2699.	22 inch,	12 80	No. 2704. 36 inch, 28 00
	No. 2705.	48 inch	$39 00

Sizes and Prices.

No. 2706.	12 inch	$ 4 20
No. 2707.	14 inch	5 40
No. 2708.	16 inch	6 80
No. 2709.	18 inch	8 80
No. 2710.	22 inch	11 80
No. 2711.	24 inch	12 80
No. 2712.	26 inch	15 60
No. 2713.	28 inch	17 50
No. 2714.	30 inch	18 50
No. 2715.	36 inch	26 00
No. 2716.	48 inch	38 00

Sizes and Prices.

No. 2685.	12 inch,	$ 6 00	No. 2690. 24 inch, $16 50
No. 2686.	14 inch,	7 50	No. 2691. 26 inch, 18 50
No. 2687.	16 inch,	8 50	No. 2692. 28 inch, 22 50
No. 2688.	18 inch,	10 50	No. 2693. 30 inch, 25 00
No. 2689.	22 inch,	13 50	No. 2694. 36 inch, 30 50
	No. 2694½.	46 inch	$40 00

Made of Best Iron. Gilded with Size. XXX Gold Leaf. Each Letter and Ring White Enamel and Black Figures. Swivel Metal Hooks.

These Watch Signs are Fully Warranted to Stand the Weather in any Climate for 5 Years.

No. 989.

No. 988. Eight-day, Strike $6 50
No. 990. Eight-day, Gong. . .. 6 00
No. 991. Eight-day, Alarm. . . 7 00
Dial 6 inches. Height, 2[illegible] inches.

No. 997.

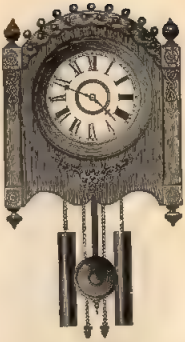
Oak or Walnut.

No. 997. Eight-day, Time $12 00
No. 998. Eight-day, Half-hour Strike, Gong 13 50
Dial, 8 inches. Height, 44¼ inches.

No. 994.

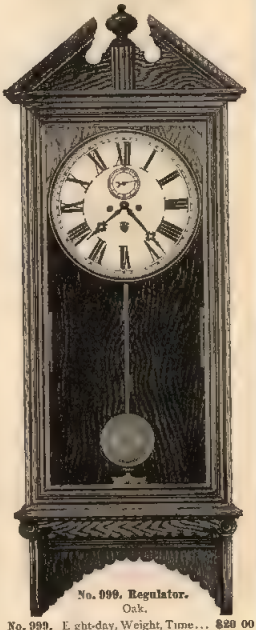
Finished in Black Walnut, Ash, Mahogany or Oak.

No. 994. Eight-day, Spring, Time $15 00
No. 995. Eight-day, Spring, Gong Strike 17 00
No. 996. Eight-day, Weight, Time. 19 50
Dial, 8 inches. Height, 34 inches.



No. 992.

No. 992. Eight-day, Weight, Strike, Gong $11 00
Dial, 8 inches. Height, 25 inches.



No. 999. Regulator.

Oak.

No. 999. Eight-day, Weight, Time... $20 00
Dead-beat Escapement, Retaining Power. Solid Movement Frames.
Dial, 12 inches. Height, 49½ inches.

No. 980.
Oak or Walnut
No. 980. Eight-day, Half-hour Strike **$6 00**
Alarm additional **50**
Dial, 6 inches. Height, 26½ inches

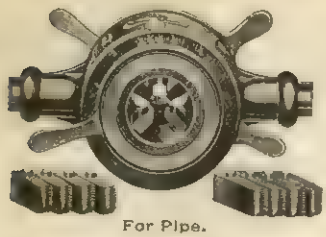
No. 981.
Oak or Walnut
No. 981. Eight day, Half hour Strike. **$6 00**
Alarm add tional **50**
Dial, 6 inches. Height, 28½ inches

No. 982.
Walnut
No. 982. Eight-day, Half-hour Strike **$6 50**
Alarm additional **50**
Dial, 6 inches. Height 29½ inches.

No. 983.
Walnut.
No. 983. Eight-day, Time . . . . **$ 8 00**
No. 984. Eight day, Half hour Strike, Gong **9 50**
Dial, 8 inches. Height, 42 inches.

No. 985.
Oak or Black Walnut.
No. 985. Eight-day, Spring, Time . . **$10 00**
No. 986. Eight-day, Spring, Gong Strike **12 00**
Dial, 8 inches Height, 42 inches.

No. 987.
Oak Walnut or Cherry.
No. 987. Eight-day, Time **$10 00**
No. 988. Eight-day, Half-hour Strike, Gong **11 50**
Dial, 8 inches. Height, 38½ inches.



For Pipe.

HART'S PATENT DUPLEX DIE STOCK

BOTH GUIDES AND DIES INSTANTLY ADJUSTABLE

No Wrench, Screw-driver, Thumbscrew or Collets needed for any adjustment. **Tool Complete in Itself,** and will do more and better work than any other hand die made.

DIES EASILY SHARPENED ON A GRINDSTONE. LIGHT, STRONG, COMPACT, SIMPLE AND VERY EASILY OPERATED.

LIST OF SIZES

FOR PIPE.

No. 1 cuts off and threads	⅛, ¼, ⅜, ½, ¾ Pipe	
No. 2 " " "	¼, ⅜, ½, ¾, 1, 1¼	"
No 3 " " "	1, 1¼, 1½, 2	"
No. 3½ " " "	1¼, 1½, 1¾, 2	"
No. 4 " " "	1½, 2, 2½, 3	"
No. 5 " " "	2½, 3, 3½, 4	"

Pipe Die Stocks made with or without Cut-off attachment. They will always be sent with Cut-off unless otherwise ordered.

For Bolts.

No Turning Back Over the Thread after it is Once Cut

is a prominent feature of the Duplex. Can be opened and taken off without turning back, and instantly reset again for cut, thereby doing one-third more work than any other die. A quarter turn of face plates will instantly release or lock dies firmly in position.

LIST OF SIZES.

FOR MACHINISTS AND BLACKSMITHS.

AA, Threads	¼	3-16	¼	5-16	⅜	7 16	½	Bolts
	32	24	20	18	16	14	12	

⁂-Put up in case with 7 Taps and 7 Sets of Dies

A, Threads	¼	5-16	⅜	7-16	½@9-16	⅝	¾	Bolts
	20	18	16	14	12	11	10	

⁂-Put up in case with 8 Taps and 7 Sets of Dies.

B, Threads	¼	5-16	⅜	7 16	½@9-16	⅝	¾	⅞	1	Bolts
	20	18	16	14	12	11	10	9	8	

⁂-Put up in case with 10 Taps and 9 Sets of Dies.

C, Threads	⅛@9-16	¼	⅜	½	⅝	1"@1½	1⅛@1½	Bolts
	12	11	10	9	8	7	6	

⁂-Put up in case with 10 Taps and 7 Sets of Dies.

Bolt Dies are fitted to cut Whitworth, U. S. or "V" threads.

Pipe dies are fitted to cut American or English pipe threads.

In ordering always state which is wanted.

Catalogues and discounts will be furnished upon application to

...THE HART MANUFACTURING CO.

...No. 8 Wood Street, CLEVELAND, OHIO, U. S. A.

For Sale by Dealers all over the World

HARDWARE MECHANICS' TOOLS DEALERS

VINELAND PENCIL WORKS—McMAHON & LEAVENS, Props.

Manufacturers of **CARPENTERS' AND OFFICE PENCILS**

You sell them. Why not buy them of us, with your name and business stamp on? Send six cents in stamps for samples and catalogue. Any quantity. Any quality.

Lock Box 960 — VINELAND, N. J.

Quick Action **Vises**

..AND..

MACHINISTS'
PLUMBERS'
WOOD WORKERS'

Jack Screws *All Sizes*

THE CAPITAL MACHINE TOOL CO.

NEW YORK AGENCY
SURPLUS, DUNN & ALDER
15 MURRAY STREET

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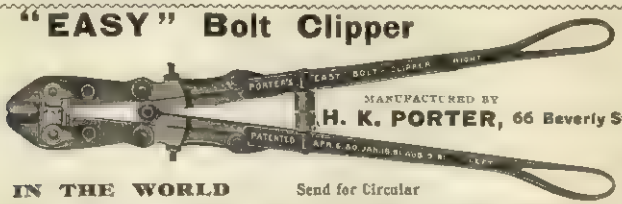

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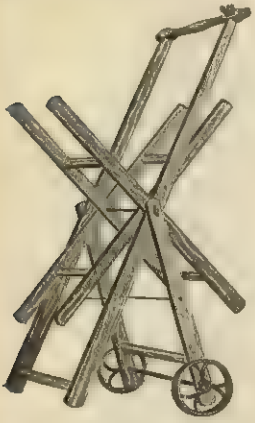

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Double Adjustable Scrapers

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The most novel construction ever invented

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In This Freezer

ice cream is frozen uniformly and free from granulation in 3½ minutes or less

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Phœnix Bicycles

Are Always Satisfactory

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Frame 22, 23, 24, 25 inches; 1¼ x 10 inch head; 1 inch tubing. Double fork crown. Handle bar, dropped or raised, choice of 6 styles. Bearings, dust proof. Sprocket wheel, dropped forged, detachable. Gear, 64, choice of 60, 63, 66½, 68, 72. Pedals, rat trap, rubber, optional. Cranks, 6 inches, choice of 6½, 7 Chain, Perry Humber pen steel bushed, imported. Tread, 6 inches. Rims, wood, steel, optional. Spokes, cold swaged. Tires, choice of New York, M. & W., G. & J., Palmer, Dunlop. Weight, from 21 to 24 lbs.

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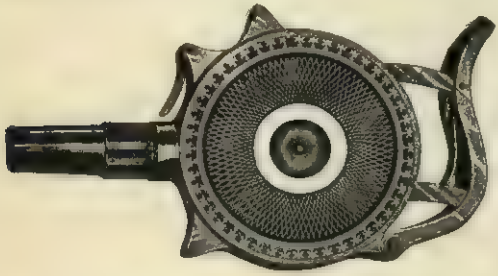

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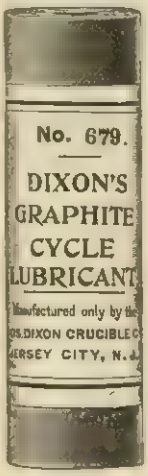

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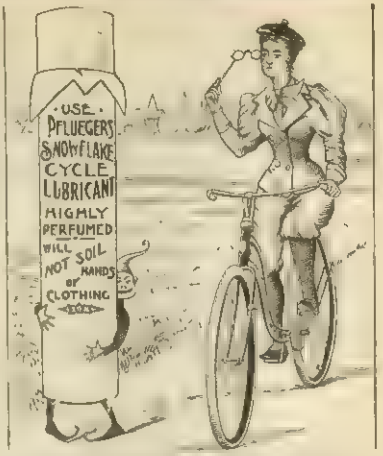

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has superior lubricating qualities, is highly perfumed and will not soil hands or clothing. Once tried, always used. 10 cents each or three sticks for 25 cents. Mailed on receipt of price. *Liberal Discount to the Trade*

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The Wheel is New

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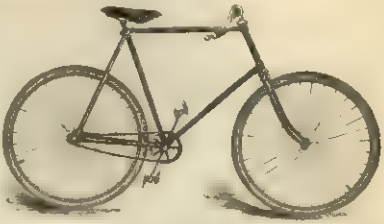

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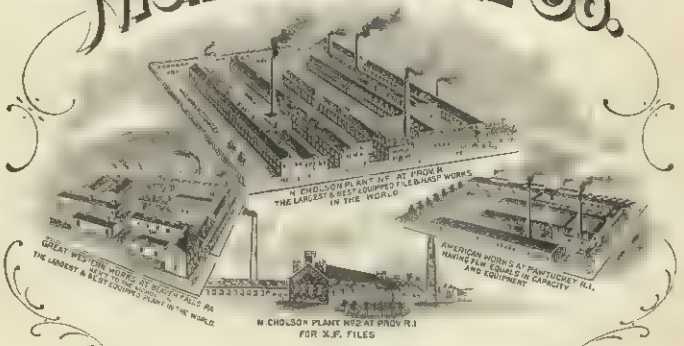
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The largest dredge in America, and probably in the world, has been completed at Alameda, Cal. It is 110 feet in length, 50 feet in breadth and 10 feet in depth. The bucket weighs five tons, and has a capacity of 12 tons of mud at one scoop.

* * *

An electric shaving mirror has made its appearance in England. The electric feature consists of a beveled frame of translucent material, behind which is an incandescent lamp and reflector. The light is thus thrown directly on the face of the subject, with an entire absence of shadow.

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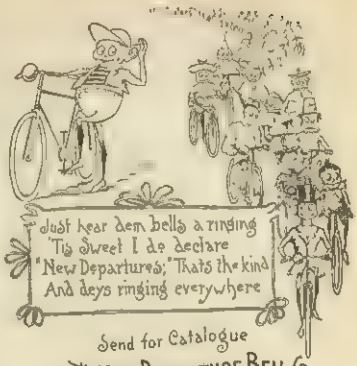
A street railway track without ties is in operation in Detroit, Mich. The tracks are laid in a six-inch bed of cement, and although a radical departure from all established methods, it has been in use long enough to be pronounced a success.



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It Is Strong
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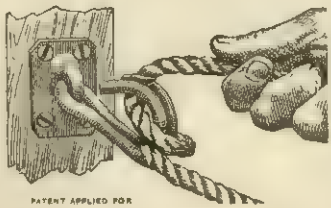
It Is Positive
It Is Easy
To Operate



It is not limited to one size of rope
It holds absolutely
It cannot slip and does not wear the rope
Acknowledged the best Tie-Hook made
It was used extensively last year and its success is established
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OVER 100 VARIETIES

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KNOWN ALL OVER THE WORLD AS THE BEST LAWN MOWERS MADE

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Fine Gold, Gilt or Nickel.
Length, 6½ inches. Height, 5 inches. Dial, 2 inches.
Electric Double Bell Alarm.....$4 00
New Improved Parker Movement. Alarm will ring four minutes.
The Alarm Movement is separate from Time Movement, and is made without escape wheel or pallets and has rotary hammer. The alarm is firm, louder and longer, and accompanied by less rattle, than any other alarm clock, and is also less liable to get out of order.

No. 1029. Parker Alarm Clock.
One-day, Time, Alarm.....$2 50
A 5-inch Alarm Clock, having an accurately adjusted watch escapement, being equi-distant locking, involute teeth, steel plates, large alarm bell on back of clock, alarm rings over four minutes, and can be removed in an instant from the absolutely dust proof case. The escapement springs may also be removed without disturbing the other parts. It is pronounced by expert horologists as beyond a doubt superior to any clock manufactured in America, and necessarily an accurate timekeeper.

No. 1030. Turnout Alarm.
One-day, Time, Alarm.....$2 80
Two Bells. Nickel Plated Frame and Sides.
Height, 9 inches. Dial, 3 inches. Gold Gilt Front.
Movement can be taken out, and front sash and glass removed to get at the hands, without disturbing case.

No. 1031. Magnet or Compass.
Nickel.
No. 1031. Magnet, One-day, Time, Alarm.....$3 00
No. 1032. Compass, One-day, Strike.....3 00
Dial, 3½ inches. Illustration One-half Size.
Made also with Nickel or Gilt Matted front Dial, 2½ inches, as per adjoining Illustration.

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No. 1035. One-day, Repeating Strike.....4 00
Movement has Two Springs and Open Nickel Back Plate.
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Movement has Three Springs.
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Glass Sides. Gilt Front and Handle.
Illustration One-half Size.

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Stem Wind and Stem Set. Dial, 1¾ inches. Beveled Glass.
Illustrations Three-quarter Size.

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Fancy Gilt Dial, Arabic Figures.
For Nos. 1037 and 1038.
List additional.. . . $0 25

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Fancy Gilt and Silver Dial, 2 inches. Beveled Glass. Polished Movement, visible through a Glass. Cylinder ⅛ inch thick
Illustration Three-quarter Size.

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Extra Nickel.
One-day, Time $1 50
Fancy Gilt and Silver Dial, 2 inches. Beveled Glass.
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No. 1043.
Japanese Bronze, Silver or Gilt Finish.
One-day, Time $3 75
Dial, 2 inches. Height, 5¾ inches.
Fancy Dial.

No. 1044.
Rich Gold or Burnished Silver.
One-day, Time.....$3 90
Dial 2 inches. Height 4¼ inches.
Fancy Dial.

No. 1045.
Silver Finish.
One-day, Time.....$3 75
Fancy Dial. Height, 4½ inches.

No. 1046.
One-day, Time. Height, 3¼ inches
No. 1047.
Nickel or Silver Finish. $2 00
No. 1048.
Gilt or Oxidized Finish $2 25
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In Leather Case. $3 50

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IMPROVED Quick and Easy Rising Steam, Electric and Hand Power . . .

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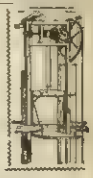

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Sidewalk Elevators or Cellar Lifts and

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Walnut, Oak or Old Oak Veneer, Polished.
Eight-day, Weight, Time **$38 00**
Dial, 14 inches. Height, 54 inches.
Beats Seconds. Brass Covered Zinc Ball. Movement has Graham Pallets, Lantern Pinions and Retaining Power. Wood Rod, Brass Weight.

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Walnut, Cabinet Finish, Glass Sides.
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Brass Weight. Beats Seconds, Dead-beat Escapement, Retaining Power. Solid Polished Movement Frames. Silver Dial, 10 inches. Height, 69½ inches.

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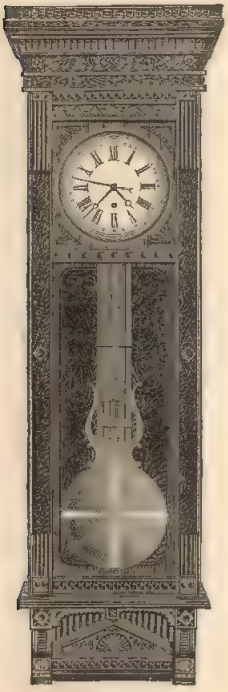
Walnut, Cherry, Oak or Old Oak Veneer, Polished
Eight-day, Weight Time . . **$22 00**
Dial, 12 inches. Height, 34 inches.
Movement 2½x4¼ inches, lantern pinions, Graham Pallets, Brass Covered Zinc Ball, and Wood Rod. Eighty Beats to the Minute. Movement has Retaining Power.



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No. 1005. With Gridiron Pendulum, Oval Rods. $100 00

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Finely finished Movement of best quality encased in Iron Box. Dead-beat Pin Escapement, Sweep Second, Retaining Power. Porcelain Dial, 12 inches. Height, 82 inches.

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Winds with Chain.

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Beats Seconds, Dead-beat Escapement, Retaining Power. Solid Polished Movement Frames. Silver Dial, 10 inches Height, 76¾ inches.

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Manufacturers of

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Spring, Revolving and Saddler's Punches, Screw Drivers, Nail Sets, Countersinks, Pinking and Curling Irons, Rivet Sets, Tracing Wheels, Gimlet Bits, Baxter's "S" Wrenches, Box and Wall Scrapers. **Foster Door Springs.**

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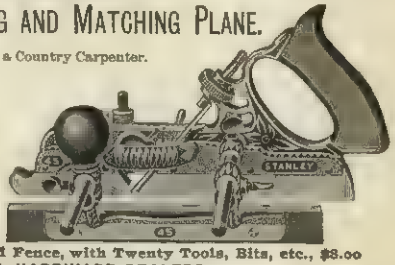
"A Planing Mill within itself,"—says a Country Carpenter.



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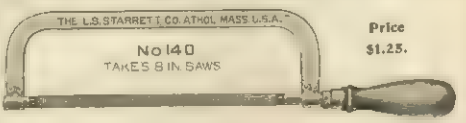

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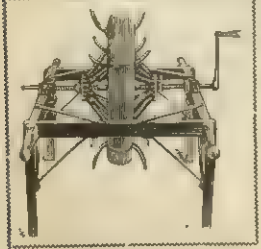

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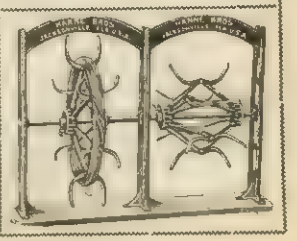

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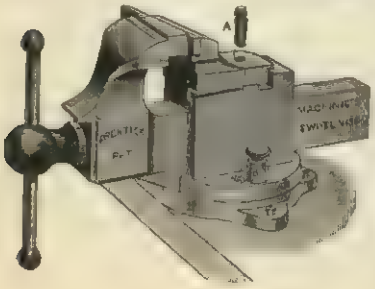

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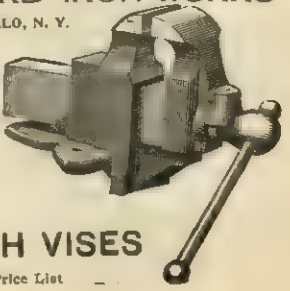

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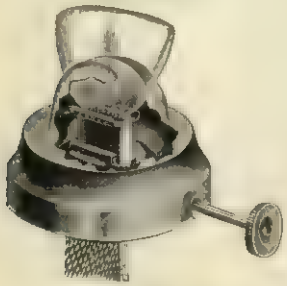
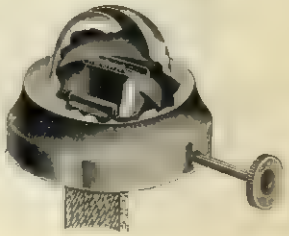


This shows the extinguisher closed and the light extinguished



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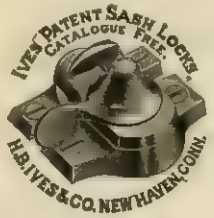

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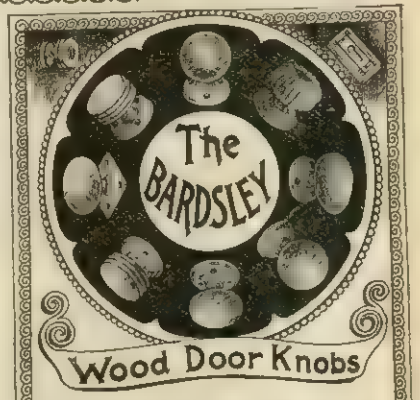

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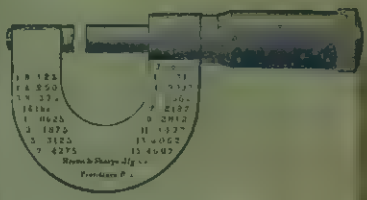

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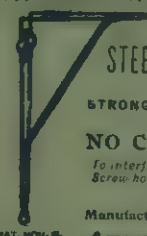

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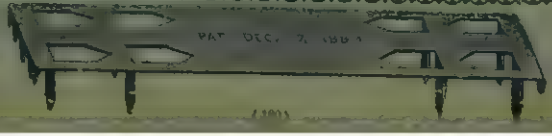

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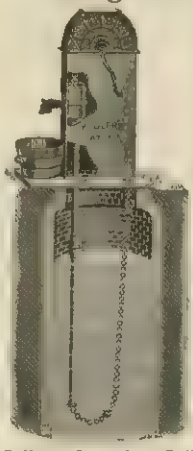

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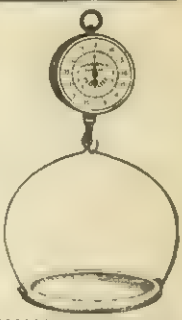

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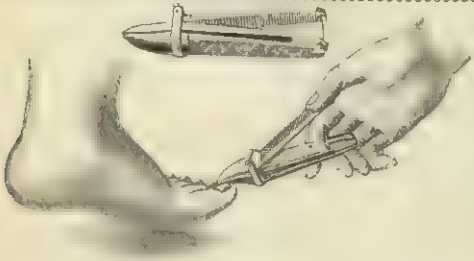

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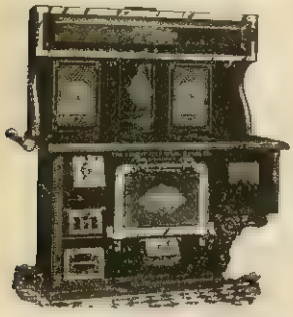

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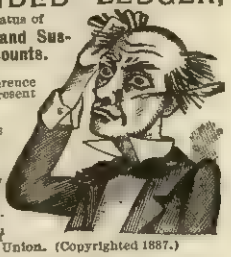

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Thoroughly ***"Up to Date."*** Burns without a chimney. Can be lighted without removing drum. It burns 12 hours and will heat a room 15 x 15 for one cent an hour.

Lamps in China, Glass and Metal in every conceivable design and finish. One burner—three sizes.

Prices to suit the present reduced market. Catalogue, with full particulars, on ***application.*** We can save you ***Money.***

THE ROCHESTER LAMP CO.

42 Park Place and 37 Barclay St., New York

Height, 28½ in.

No. 1971. Heater Complete. Height 27 Inches.

BANNER OIL HEATER

Simple, Novel and Practical
Requires Less Care than the Ordinary Lamp

Will burn 10 to 12 hours and Heat Comfortably a room 15 to 20 feet square

No Smoke **No Odor** **Perfect Combustion**

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The Oil Fount is brass, handsomely embossed and highly nickeled. It holds one gallon of oil. As each fount is tested under steam pressure before leaving the factory, there is no danger of leaking.

No Chimney. The drum of the ***BANNER*** in its construction acts as a chimney, saving the expense incident to the renewal of glass chimneys of other makes.

The Fount Frame is artistically made of wrought iron, making a solid base for the stove.

The Burner is the best made, and ONLY ONE with feeder wick, allowing all the oil to be consumed.

The Indicator shows at all times how much oil there is in fount.

The Flame is regulated with our ratchet wick movement, which allows the wick to be raised or lowered with nicety and exactness.

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Draft. The round openings in the drum create great suction of cold air in addition to the regular draft. Double the radiating force of the ordinary stove is thus secured.

Get one for your Bed, Bath or Smoking Room, Library, Nursery, Office or Conservatory

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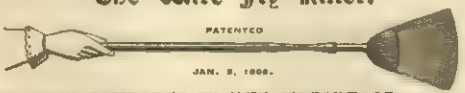

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This is the testimony of the many thousands of women who are using them

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Will not crush, soil or mar the most delicate wall paper or ceiling
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Invaluable on Flats
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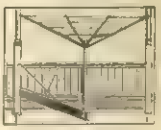

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Patented Seamless Cove

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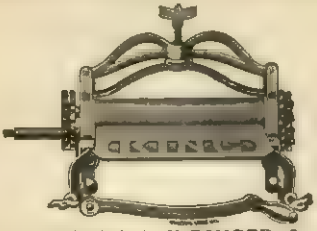

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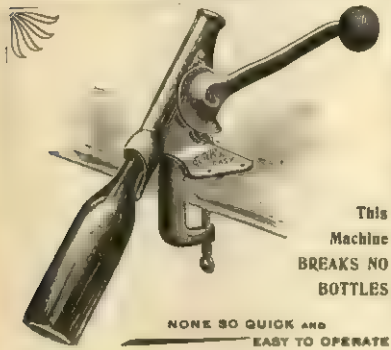

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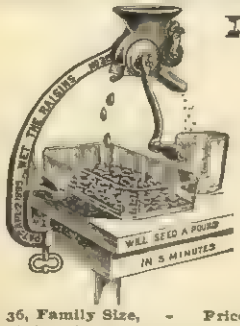

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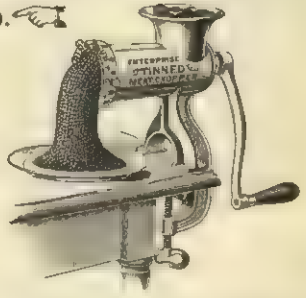

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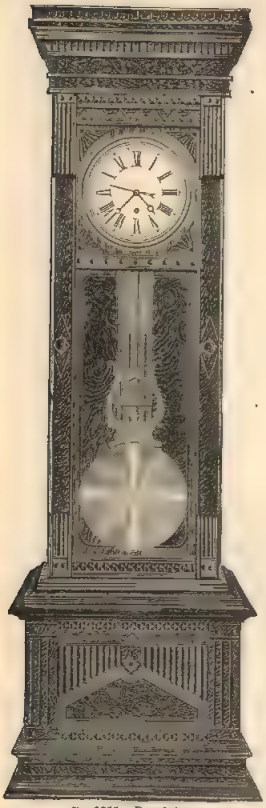

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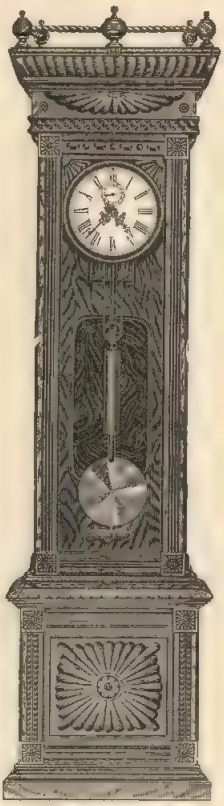
Finely finished Movement of best quality encased in Iron Box. Dead-beat Pin Escapement, Sweep Second, Retaining Power. Porcelain Dial, 12 inches. Height, 102 inches.



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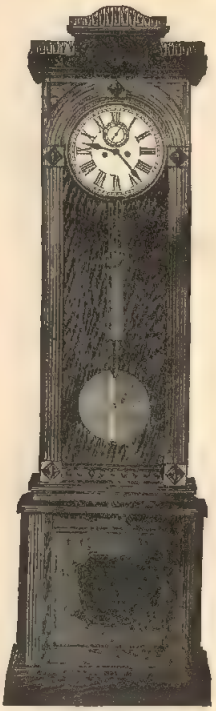

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Walnut, Cabinet Finish, Glass Sides.

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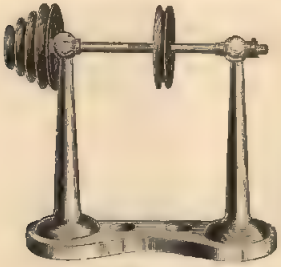
No. 1017. Eight-day, Weight, Half hour Strike, Gong. No. 130 Movement 80 00

Brass Weight

Beats Seconds, Dead-beat Escapement, Retaining Power. Solid Polished Movement Frames. Silver Dial, 10 inches. Height, 87 inches.



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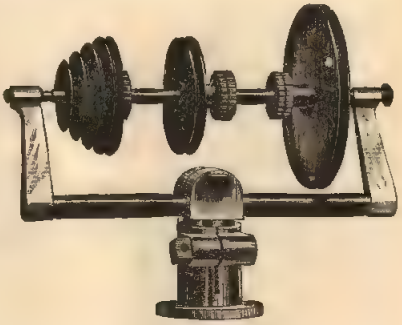

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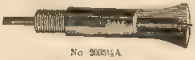
No. 2003½. All Nickel, Speed Countershaft, all Nickel Pulleys, Lever Tightening.....each, 4 25



No. 2003½A

CYLINDER WIRE CHUCK.

This Chuck fills a long-felt want. The cut shows sectional view of our Cylinder Wire Chuck for turning lower pivot on cylinder without wax. It is very convenient, and turns pivot true with cylinder. Nos. 9, 10, 11 and 12 take all sizes, and same Chucks can also be used for staff work. Each, $1.25, with Placing Rod.

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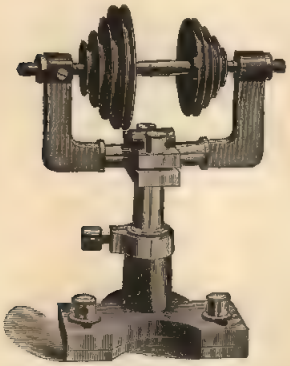
This Chuck will be found handy and necessary for reducing ends of screws, the heads of which cannot be held in Wire Chuck. Each, with 3 Caps, $1 50. Extra Caps, 10 cts. each.



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Boley's Adjustable, Nickel Plated.....each, 4 25

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Warranted First Class.

It is the only Universal Face Plate in the market having a Hardened Chuck and Pump Center.
It is excellently finished, and Nickel Plated, and can not get out of order. We have these to fit any American Lathe.
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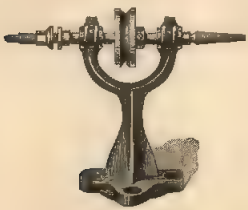

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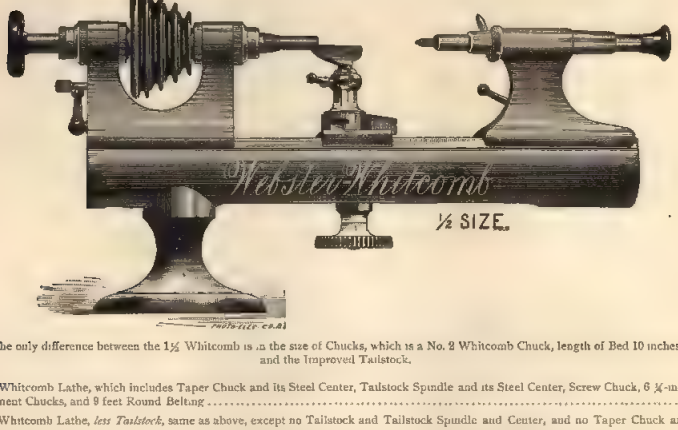


The only difference between the 1½ Whitcomb is in the size of Chucks, which is a No. 2 Whitcomb Chuck, length of Bed 10 inches, and the Improved Tailstock.

Webster-Whitcomb Lathe, which includes Taper Chuck and its Steel Center, Tailstock Spindle and its Steel Center, Screw Chuck, 6 ¼-inch Cement Chucks, and 9 feet Round Belting $36 00

Webster-Whitcomb Lathe, *less Tailstock*, same as above, except no Tailstock and Tailstock Spindle and Center, and no Taper Chuck and Center 30 00

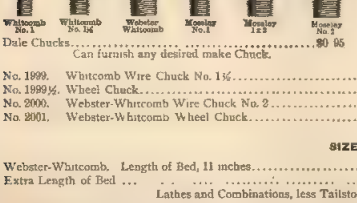
Webster-Whitcomb Lathe, as first described above, and 10 Wire Chucks (12 Chucks), and Arrick's Balance Protector..... 46 00
(Size of Chucks—Nos. 5, 6, 7, 8, 9, 10, 12, 16, 20, 40.)

Webster-Whitcomb Lathe, as first described above and 15 Wire Chucks (17 Chucks), and Arrick's Balance Protector 51 00
(Size of Chucks—Nos. 4, 5, 6, 7, 8, 9, 10, 12, 16, 20, 24, 30, 34, 40, 50.)

Webster Whitcomb Lathe, as first described above and 20 Wire Chucks (22 Chucks), and Arrick's Balance Protector 55 50
(Size of Chucks—Nos. 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 34, 40, 50.)

Webster-Whitcomb Lathe, as first described above and 30 Wire Chucks (32 Chucks), and Arrick's Balance Protector 65 00
(Size of Chucks—Nos. 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 56, 60.)

Webster-Whitcomb Lathe, as first described above and 40 Wire Chucks (42 Chucks), and Arrick's Balance Protector 74 00
(Size of Chucks—Nos. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60.)



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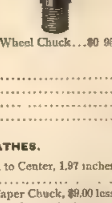
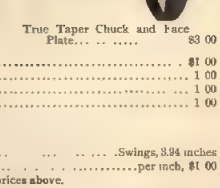
Can furnish any desired make Chuck.



Wheel Chuck...$0 95



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No. 1999½. Wheel Chuck..... 1 00
No. 2000. Webster-Whitcomb Wire Chuck No. 2..... 1 00
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Extra Length of Bed .....per inch, $1 00

Lathes and Combinations, less Tailstock and Taper Chuck, $9.00 less than prices above.

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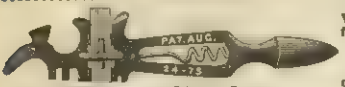

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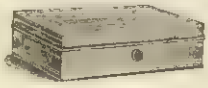

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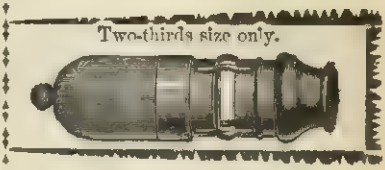

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HARDWARE SPECIALTIES DEALERS

SALABLE HARDWARE SPECIALTIES

Royal Dauber

Eureka Shoe Polisher

People's Dauber

The P & P Dauber

FARMER'S FAVORITE
Potato Bug Exterminator

Boss
Dust Beater

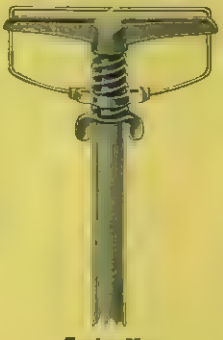
Clark's Oil Can

Trojan Mop

These are a few of our Hardware Specialties. Send for Catalogue of our complete line, and prices.

PARKS & PARKS

TROY, N. Y.



Taylor Mop

HARDWARE SPECIALTIES DEALER

RANDALL'S NEW VALVE ADJUSTING BOLT CLIPPERS

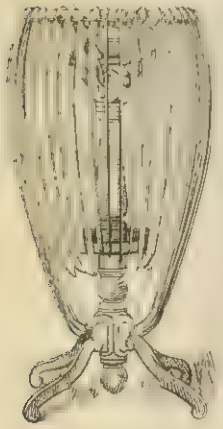
Adjusted to a hair's breadth in a moment's time.

Each part put together with steel screws. The quick and easy adjustment is the great feature of superiority in these Clippers over all others.

No weak spots in the whole Clipper. Knives tempered in the most careful manner. Every Clipper thoroughly tested before it leaves our factory. No. 3 cuts 5/8 inch or less. No 4, 1/2 inch or less. No. 5 cuts 3/8 inch or less. Patented in Great Britain.

Address, P. D. RANDALL & SON, TROY, N. Y., U. S. A.

Revolving Combination Scythe and Axe Rack



PATENT APPLIED FOR.

Just step one side; we want to talk to you a few moments. Is there anything in your stock worse to display than a Scythe or an Axe?

If you had them on your floor where people could see them without coming in contact, cutting or injuring themselves in any way, would not you sell more of them?

Is it a good plan to have goods sprinkled upon by careless help and then sold at a loss?

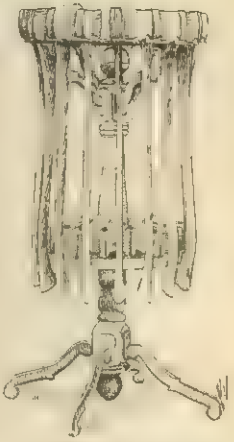
Don't you sell more goods by having them out where customers can see them than by having them hidden?

Can't you afford to buy a rack for Scythes and Axes if you buy cases and other fixtures for goods that pay you a smaller margin?

How much space does it take to display 4 dozen Scythes, 16 Axes and 16 Handled Axes in your way?

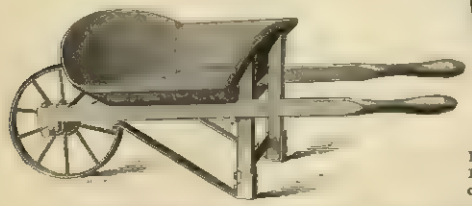
Don't you want to be up to date if it costs you nothing? Sell two dozen more Scythes or Axes in a year, which is too easy and your rack does not stand you a cent.

The rack is 4½ feet high, 2 feet in diameter; weighs 75 pounds. We will send you a Rack, and if it does not please send it back. List price $10. Write for Discount to



PATENT APPLIED FOR.

ZIMMERLIN BROS., Lyons, (Wayne Co.) N. Y., U. S. A.



WHEELBARROWS

OF

STEEL or WOOD

The cut shows our Steel Tray, Wood Frame Wheelbarrow, the Steel Brace to Leg forming a shoe on which the barrow can be slid.

This Makes a Strong, Rigid and Double Wheelbarrow

Write for Catalogue.

KENTUCKY MANUFACTURING CO., Covington, Ky.

Tired Out

and the day and the work only half done

This young woman needs advice—not sympathy. She sticks to the centuries-old way of washing and cleaning, with bar soap and rubbing, with its hard work, and wears herself out for poor results. Where are her wits?

And what she needs is a good deal of Pearline, plus a few wits—bright ones—which lead her to wash with Pearline more and clean with the greatest ease and in the shortest time—women who are using millions of packages of Pearline every month.

Possibly there's but one thing wrong with Pearline and your trouble would be better if you'd never heard about it. If you've used Pearline, you're right as houses. If you haven't, use Pearline, as millions do, and be right. Directions inside.

Pearline Keeps White Things White and Bright Women Bright

Look
Around

Beware

Williams' Pearline

Look Around

and see the women who are using PEARLINE. It's easy to pick them out. They're bright, fresher, more cheerful. Place the women who have spent years at the rub-a-dub-dub way. Why shouldn't they be? Washing with PEARLINE is easy. And look at the clothes that are washed with PEARLINE. They're whiter and sweeter. They may be old, but they don't show it.

Beware

have been advised to use "the same as PEARLINE." If your grocer sends you anything in place of PEARLINE, he is trying to defraud you. Return it at once. Peddlers and some unscrupulous grocers are offering imitations. Don't be deceived. For clothes washed with PEARLINE are white. 352

Millions Now Use Pearline

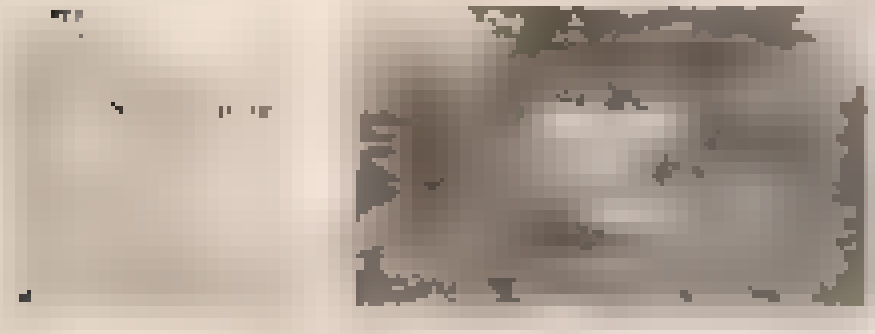
BATHING is always pleasant, with PEARS' SOAP it is a luxury You never can find another toilet soap that so closely comes up to the ideal of perfection, and so long as fair, white hands, a bright, clear complexion and a soft, healthful skin continue to add to beauty and attractiveness so long will

Pears' Soap

continue to hold its place in the good opinion of women who wish to be beautiful and attractive. Its purity is such that it may be used on the tenderest and most sensitive skin, even that of a new-born babe.

The Harvard Photograph Outfit.

It is the Best Low-Priced Camera Made



The Camera Has a French Lens,

Takes a Picture

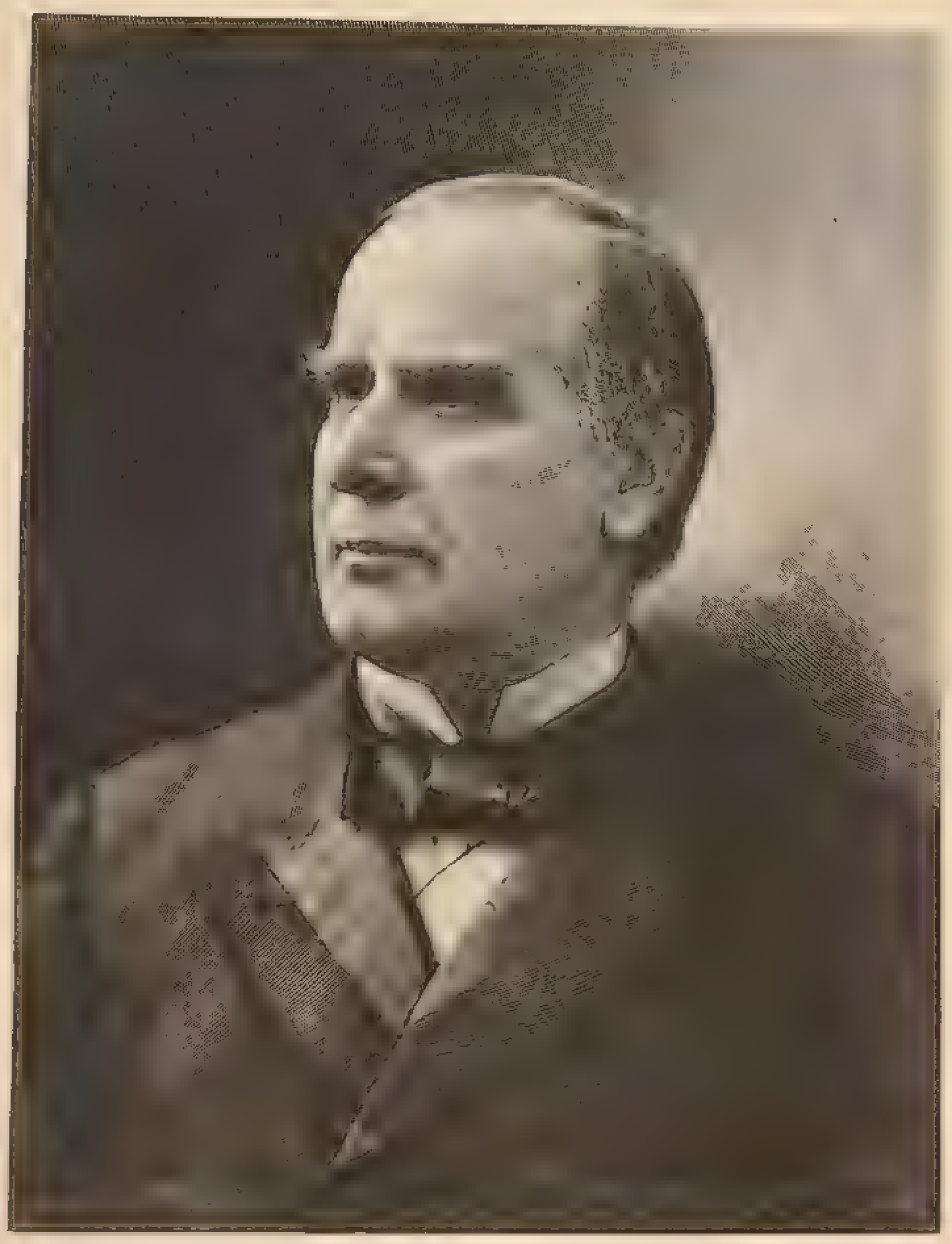
A MERRY TIME

PERRY MASON & COMPANY Boston, Mass.

THE REPUBLICAN NATIONAL CONVENTION, ST LOUIS

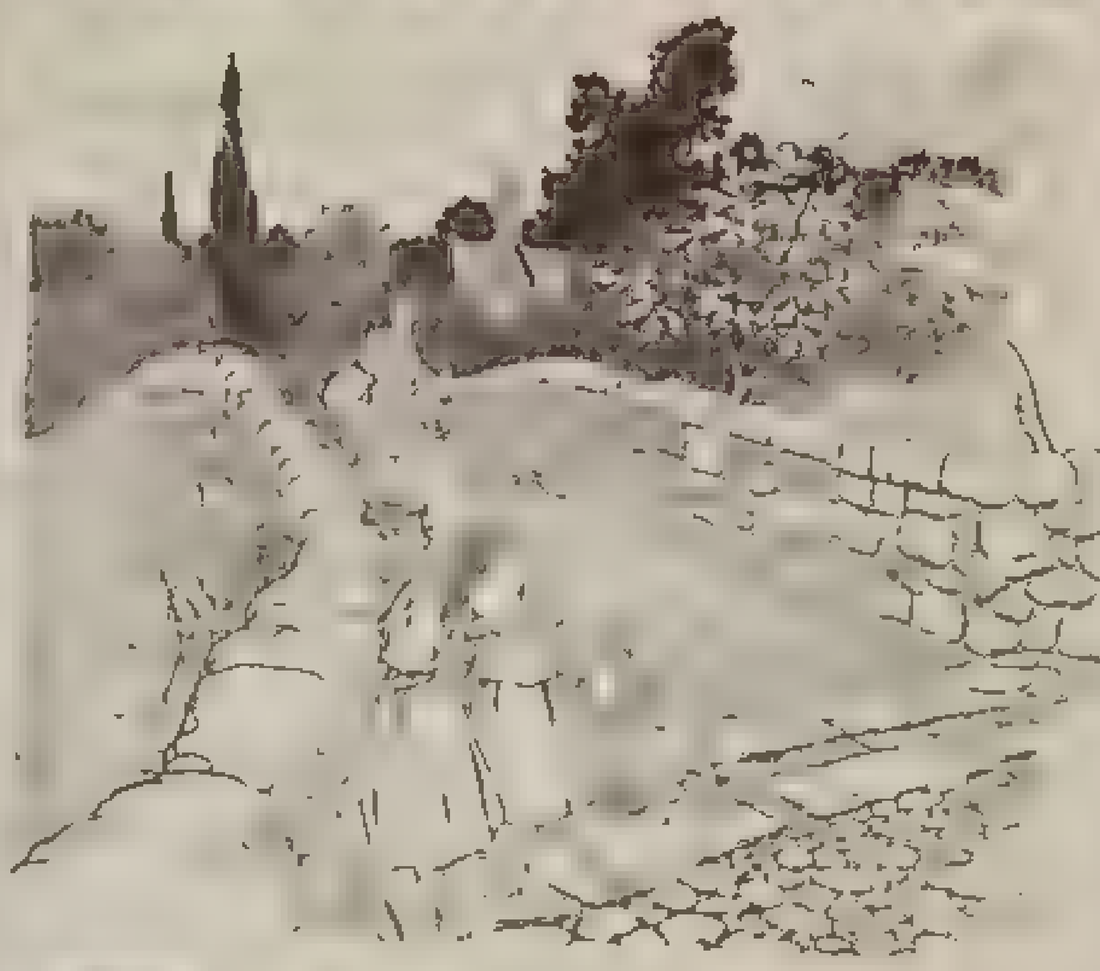
HARPER'S WEEKLY

NEW YORK, SATURDAY, JUNE 27



WILLIAM McKINLEY, REPUBLICAN CANDIDATE FOR PRESIDENT.

Columbia Bicycles



THE double-loop frame characteristic of Columbia Model 41 makes it the handsomest and most graceful bicycle provided for woman's use. In strength, lightness and elegance of finish and equipment it is not approached by any other bicycle.

Columbia Model 42 is a diamond frame machine especially designed for women's needs—a refined miniature of the famous Model 41.

Columbias are sold for the unvarying price of $100. Hartford Bicycles, next best to Columbias, sell for $50, $50, $40.

POPE MANUFACTURING CO.

GENERAL OFFICES AND FACTORIES, HARTFORD, CONN.

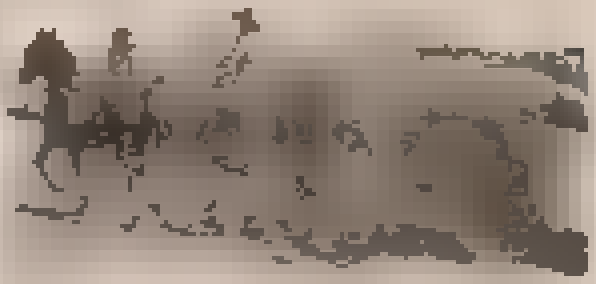
NOVEMBER 1896 TEN CENTS

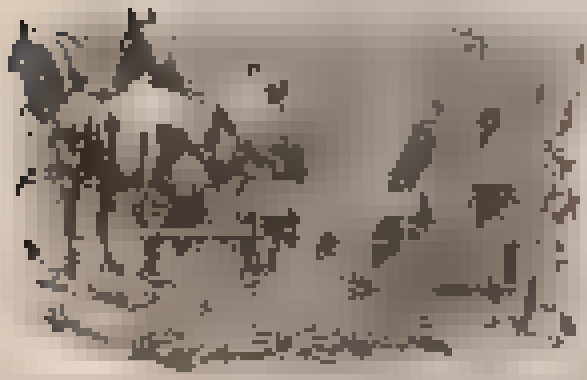
THE LADIES' HOME JOURNAL

THANKSGIVING NUMBER

THE CURTIS PUBLISHING COMPANY, PHILADELPHIA

CORN-GROWING CONTEST





TRY IT IN YOUR BATH

SCRUBB'S Cloudy Household AMMONIA

MARVELLOUS PREPARATION.

Refreshing as a Turkish Bath.
Invaluable for Toilet Purposes.
Splendid Cleansing Preparation for the Hair.
Removes Stains and Grease Spots from Clothing.
Allays the Irritation caused by Mosquito Bites.
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1s. Bottle for six to ten Baths.

Of all Grocers, Chemists, Etc.

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MANUFACTURERS OF SCRUBB'S ANTISEPTIC SKIN SOAP.

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AMATEVR SPORT

— FARM MACHINERY —

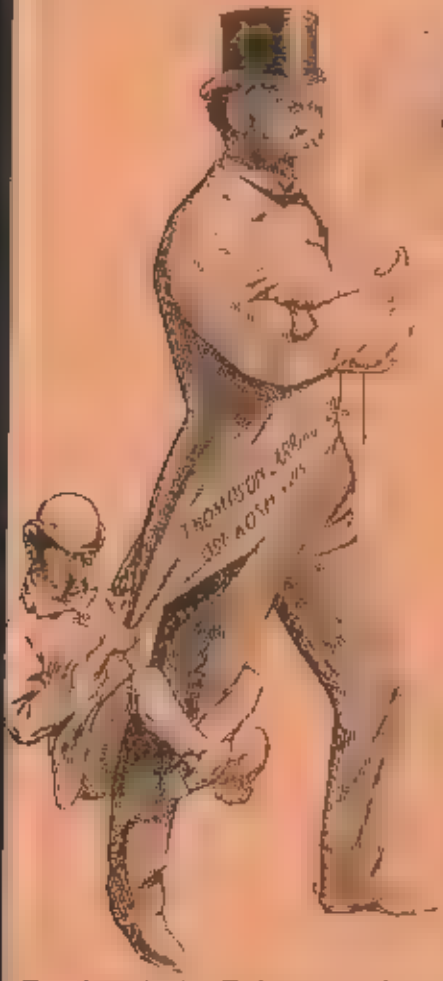
OSHKOSH, WIS.

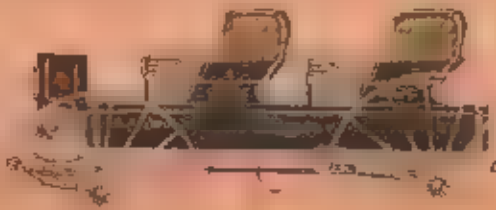
THOMPSON CARRIAGE CO.,

MAKERS OF

THE PERFECT WAGON

Nearly 90,000 Now In Use





THE IMPROVED "CLIMAX"

Oscillation 15 Inches

The Strongest Device of its Kind Ever Invented

The Most Perfect in Action

Don't ask the Price on this one: Because it's not Built That Way.

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VOLUME XXVII NEW YORK FEBRUARY 1 896 NUMBER

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CONQUERS PAIN.

Now Know Us.

WHEN we claim that WHITE bicycles are the embodiment of beauty, graceful design, lightness, durability and all that the ingenuity of man can suggest, as far as relates to mechanical construction, you know we state nothing but "clean cut" facts. You know that reputation counts. Twenty years as manufacturers of that "King" of Sewing machines, the WHITE, has made our name a household word in every section of the globe. A bicycle, like a sewing machine, should be in practical service for years. The WHITE is one of the serving kind. You want value for your $75.00 and $100.00, when invested in a wheel. The WHITE is the valuable kind; made to wear, guaranteed to wear, and will wear.

MARK THE PREDICTION!
THE WHEEL OF THE FUTURE IS THE WHITE
NO ARGUMENT ABOUT THIS WHATEVER.

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Models "A" and "B", for Ladies and Gentlemen, list $100.
" "C" and "D", " " " $75.

"A" and "B" finished in dark green, maroon, black and clear white enamel, with handsome gold striping. Can you conceive of anything more handsome than the ladies' model "B" in white or maroon enamel, with its gold ornamentation and heavily nickel-plated trimmings, or model "A," gents' style, in dark enamel, with handsome gold striping?

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